CULTURALLY RESPONSIVE SERVICES FOR GIFTED BLACK STUDENTS: A SYSTEMATIC REVIEW

SERVIÇOS CULTURALMENTE RESPONSIVOS PARA ESTUDANTES NEGROS SUPERDOTADOS: UMA REVISÃO SISTEMÁTICA

SERVICIOS CULTURALMENTE RECEPTIVOS PARA ESTUDANTES SUPERDOTADOS DE RAZA NEGRA: UMA REVISIÓN SISTEMÁTICA

Rachel Fernandes Marinho[1], Denise de Souza Fleith[2]

ABSTRACT

This study is a systematic review that examines publications on culturally responsive services for gifted Black students. The search between 2020 and 2024 used the Education Resources Information Center (ERIC) and Scopus databases. Of the 102 articles found, 14 were analyzed. The analysis identified five central themes: Underrepresentation and Barriers to Access and Retention of Black Students in Gifted Programs; Theoretical Models Applied to Gifted Education; Pedagogical Models and Curricular Practices Aimed at Equity; Teacher Training; and Challenges and Recommendations for Policies and Future Practices. The findings point to the need to rethink the identification and specialized services for these students, to expand their representation and provide relevant services. Therefore, this review offers insights to improve services for gifted Black students, making them more culturally responsive. The restriction to two databases and the inclusion of articles only in English and Portuguese are limitations of the study.

Keywords: Systematic Review. Giftedness. Racial Equity.

RESUMO

Este estudo é uma revisão sistemática que examina publicações sobre atendimentos culturalmente responsivos a estudantes negros superdotados. A busca entre 2020 e 2024, utilizou as bases Education Resources Information Center (ERIC) e Scopus. Dos 102 artigos encontrados, 14 foram analisados. A análise identificou cinco temas centrais: Sub-representação e Barreiras no Acesso e Permanência de Estudantes Negros em Programas de Atendimento ao Superdotado, Modelos Teóricos Aplicados à Educação dos Superdotados, Modelos Pedagógicos e Práticas Curriculares Voltadas à Equidade, Formação Docente, e Desafios e Recomendações para Políticas e Práticas Futuras. Os achados apontam para a necessidade de repensar a identificação e o atendimento especializado a esses estudantes, visando ampliar sua representação e oferecer atendimento relevante. Esta revisão, portanto, oferece subsídios para aprimorar o

[1] Master's degree in Developmental and School Psychology. Universidade de Brasília (UNB). Distrito Federal, Brazil. E-mail: mestredounbrachel@gmail.com Orcid: https://orcid.org/0009-0005-1380-3640
Lattes: https://lattes.cnpq.br/3049091589563949
[2] Dr. in Educational Psychology. Universidade de Brasília (UNB). Distrito Federal, Brazil.
E-mail: fleith@unb.br Orcid: https://orcid.org/0000-0001-7512-8023
Lattes: http://lattes.cnpq.br/1547796890753678

atendimento a estudantes negros superdotados, tornando-o mais culturalmente responsivo. A consulta restrita a duas bases e a inclusão de artigos apenas em inglês e português são limitações do trabalho.

Palavras-chave: Revisão Sistemática. Superdotação. Equidade Racial.

RESUMEN
Este estudio es una revisión sistemática que examina publicaciones sobre servicios culturalmente responsivos para estudiantes negros superdotados. La búsqueda entre 2020 y 2024 utilizó las bases ERIC y Scopus. De los 102 artículos encontrados, se analizaron 14. El análisis identificó cinco temas centrales: Subrepresentación y Barreras en el Acceso y Permanencia de Estudiantes Negros en Programas de Atención a Superdotados, Modelos Teóricos Aplicados a la Educación de Superdotados, Modelos Pedagógicos y Prácticas Curriculares Orientadas a la Equidad, Formación Docente, y Desafíos y Recomendaciones para Políticas y Prácticas Futuras. Los hallazgos señalan la necesidad de repensar la identificación y la atención especializada de estos estudiantes, para ampliar su representación y ofrecer un servicio relevante. Esta revisión ofrece aportes para mejorar la atención a estudiantes negros superdotados, haciéndola más culturalmente responsiva. La consulta restringida a dos bases y la inclusión de artículos solo en inglés y portugués son limitaciones del estudio.

Palabras clave: Revisión Sistemática. Superdotación. Equidad Racial.

1 INTRODUCTION

Gifted education has sparked growing interest within the scientific community. Between 2020 and 2024, there was an 8.65% increase in publications indexed in the Scopus database. One topic that has gained prominence is the investigation of historically underrepresented groups in specialized programs, particularly due to international demands for equity. In this context, research has highlighted issues such as the underachievement of Black students (Mun *et al*., 2024), the gap in access to gifted education (Ford *et al*., 2019), and the challenges faced by Black girls in these programs (Gomide; Garcia, 2022).

According to Renzulli e Reis (2021), gifted behavior emerges from the interaction among three dimensions – above-average ability, creativity, and task commitment. Above-average ability may manifest in general or specific areas of human knowledge, such as general intelligence or sports. Creativity refers to behaviors such as originality and the breaking of established patterns. Task commitment is related to motivational aspects, including perseverance and determination.

Despite advances, challenges in identifying and serving these students persist. In Brazil, for example, the national school census indicates that they represent only .093% of students in basic education (National Institute for Educational Studies and Research Anísio Teixeira, 2025). Among the obstacles are the insufficient training of teachers to recognize and support them (Pérez; Freitas, 2014), the scarcity of specialized services, and the persistence of myths that make it difficult to identify talents in different contexts (Alencar *et al*., 2020). Furthermore, socioeconomic and structural barriers compromise equitable access to developmental opportunities (Silva; Anjos, 2022). Although giftedness transcends cultural, ethnic, linguistic, socioeconomic, geographic, and religious aspects (Basto, 2018; Reis; Renzulli, 2009), gifted Black students also face barriers imposed by racism.

Structural racism hinders the recognition of Black students' potential. This occurs because the social construction of race, historically associated with societal hierarchies, was grounded in biological determinism to legitimize relations of domination. This process established the European as the universal standard of intelligence and development, while other groups were systematically marginalized (Almeida, 2019). Although it is known that the idea of race has no scientific basis, racial disparities in Brazil persist and are reflected in existing socioeconomic disadvantages (d'Adesky, 2022).

This logic complicates the identification of gifted Black students and reinforces the marginalization of historically excluded groups. As a result, these students face a double

erasure: underrepresentation in official statistics and less access to specialized educational opportunities, due to a social structure that devalues their skills and interests, underestimating their capacities.

In light of these structural barriers, Critical Race Theory (CRT) provides a theoretical framework to analyze the relationship between racism and education, proposing pathways toward equitable teaching. Its principles aim to shift the dynamics among race, racism, and power, highlighting the obstacles faced by gifted Black populations. CRT has six core principles: (a) racism as the norm rather than the exception: the naturalization of racism hinders efforts to confront discrimination; (b) interest convergence: changes occur when there are secondary benefits for the white population; (c) race as a social construct: physical traits have no genetic relation to personality, intelligence, or moral conduct; (d) differential racialization: dominant groups assign racial characteristics according to circumstances; (e) voice of color: the narratives of minorities provide deeper insight into their lived experiences; and (f) intersectionality: "people do not have a single, easily determinable, uniform identity" (Delgado; Stefancic, 2021, p. 35).

Applying these principles to education helps explain the underrepresentation of gifted Black students in specialized services, a phenomenon widely recognized in the literature (Abad; Abad, 2021; Ford, 2021a; Gomide; Garcia, 2022). From this perspective, it becomes evident how teachers' low expectations and biased evaluations reflect structural dynamics of discrimination. Moreover, the achievement gap, often used as a justification for the non-identification of these students, is linked to factors such as socioeconomic status, stereotypes, under-resourced schools, unprepared teachers, peer pressure, limited parental involvement, low expectations for the future, and racism, making the phenomenon even more complex (Worrell; Dixson, 2018).

Another challenge relates to the retention of students identified in gifted education services. It is necessary to establish a culturally responsive model that encompasses assessment, curriculum, philosophy, instruction, and the learning environment, with Black and culturally diverse students at the center. In this way, it would be possible to minimize obstacles such as negative stereotypes. Preparing professionals for antiracist education is essential, including guidance on how to support gifted students in dilemmas experienced in predominantly white spaces, such as peer pressure, feelings of isolation, and concerns about being different. It is important to emphasize that all students can benefit from multicultural education centered on human diversity and respect for differences (Ford, 2021a).

In this context, this study seeks to address a gap in the literature regarding the challenges faced by gifted Black students: the need for culturally responsive educational services. The aim was to conduct a systematic review of the literature on culturally responsive practices in gifted education services, analyzing those that promote equity and inclusion. The intention is to contribute to broadening the debate on equity in gifted education and to foster more inclusive public policies.

2 METHOD

The literature review followed these steps: definition of the objective, selection of descriptors, choice of databases, collection of articles, evaluation of article quality, exclusion of non-eligible studies, followed by analysis and synthesis of the data (Donato; Donato, 2019). Articles published before 2020, duplicates, book chapters, dissertations, and incomplete texts were excluded. The search was conducted for articles in Portuguese and English, but all those retrieved were in English. After reading the titles and abstracts, it was identified that the search needed to be refined by expanding the combination of descriptors. The articles were collected in February 2025 and covered the period from 2020 to 2024. The databases consulted were the Education Resources Information Center (ERIC) and Scopus (see Figure 1).

Figure 1

Flowchart of the Analyzed Articles
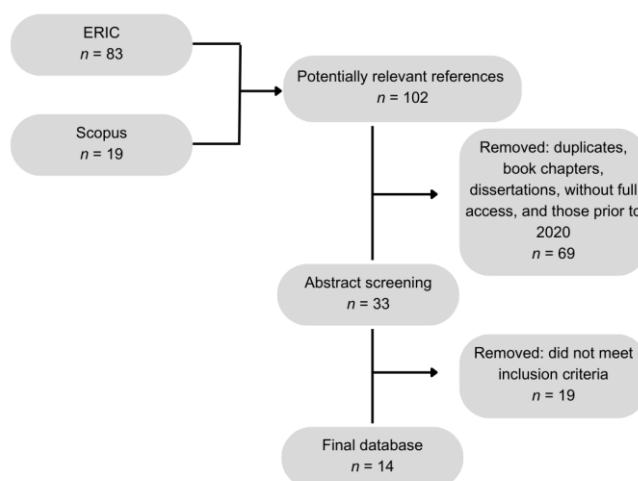
To achieve the research objective, the descriptors used encompassed expressions related to giftedness, Black students, and specialized services for gifted students with culturally responsive pedagogy. These were: (gifted OR "high ability" OR "intellectual high ability" OR "high intellectual quotient" OR "superior intellectual quotient" OR "intelligen" OR talented OR "altas habilidades" OR superdotação OR superdotado OR talento OR "advanced learners" OR "high potential") AND (negros OR afrodescendentes OR "minorias raciais" OR "pessoas negras" OR "alunos negros" OR "black students" OR race OR "racial diversity" OR raça OR "Diversidade racial" OR black OR "african american" OR color) AND ("atendimento educacional especializado" OR "AEE" OR "sala de recursos" OR atendimento OR "gifted education" OR "gifted program" OR "gifted classroom" OR "STEM" OR "advanced placement" OR "advanced programs" OR "talent pool") AND (equity OR culture OR cultural OR "cultural responsiveness" OR "culturally responsive" OR equidade OR cultura OR cultural OR "responsividade cultural" OR "culturalmente responsivo").

The selected articles were entered into a Google spreadsheet to systematize the extracted information (year, authors, objectives, methodology, results, and conclusions). To support the initial organization, the artificial intelligence platform NotebookLM was used to explore connections among the studies. An in-depth reading of the articles allowed thematic categories to emerge, which guided the analysis of the results. Five categories stand out: (a) Underrepresentation and Barriers to Access and Retention of Black Students in Gifted Education Programs; (b) Theoretical Models Applied to Gifted Education; (c) Pedagogical Models and Curricular Practices Aimed at Equity; (d) Teacher Training; and (e) Challenges and Recommendations for Future Policies and Practices.

3 RESULTS

Publications on culturally responsive services for gifted Black students have increased in recent years but remain scarce, as indicated by the number of articles found in this review (*n* = 14). Regarding the period, the years with the highest frequency were 2022 and 2023 (*n* = 4 each). In 2020, 2021, and 2024, there were two publications each year. A possible explanation for the increase in 2022 and 2023 is the impact of the COVID-19 pandemic on educational discussions. Notably, no Brazilian studies on Black gifted students were identified.

The topic has been addressed by several researchers, but a few stand out for giving greater visibility to the field. In total, 20 authors authored the 14 articles analyzed, with a small

group responsible for 46% of the publications: Donna Ford (n = 6), Tarek Grantham (n = 4), Kristina Collins (n = 3), and James Moore III (n = 3).

Regarding the category Underrepresentation and Barriers to Access and Retention of Black Students in Gifted Education Programs, the parameters of analysis are based on United States (U.S.) national data (Ford *et al*., 2019). Underrepresentation is understood as the difference between the proportion of Black students enrolled in schools and the proportion of those enrolled in gifted programs.

Ten articles explicitly mention this issue (Bright; Calvert, 2023; Caroleo, 2023; Coleman, 2020; Collins *et al*., 2022; Collins; Roberson, 2020; Ford *et al*., 2021; Hemingway, 2022; Hines *et al*., 2023; Kuykendall, 2023; Middleton; Ford, 2022). However, two articles place greater emphasis on the theme. Hemingway (2022) conducted a literature review on the referral, identification, and retention of Black students in specialized services. The author highlights underrepresentation and the responsibility of the educational system to promote equity in an increasingly diverse society. The sociodemographic composition of programs should reflect the broader student population, but it is not the case. White students still predominate in these spaces, perpetuating myths and stereotypes about Black children, such as the assumption of lower IQ or talent. It is recommended that teachers not base referrals solely on academic performance or verbal abilities, as this restricts access for students with multicultural potential. More equitable strategies include universal screening, the use of observation scales sensitive to cultural diversity, and nonverbal tests. To this end, it is essential that teacher training includes cultural aspects and encourages reflection on stereotypes and biases that influence the identification and retention of these students in gifted education programs.

Regarding barriers to the retention of Black students in gifted education services, Kuykendall (2023) evaluated the relationship between models of gifted services and performance on standardized mathematics tests in Ohio, U.S. The quasi-experimental study used data from 125,972 students identified as gifted between 2015/2016 and 2018/2019. The general findings indicated that low socioeconomic status was associated with lower mathematics scores. Early entry into kindergarten did not result in a positive impact, possibly explained by the compounded disadvantage of family poverty and enrollment in high-poverty schools. However, grade and subject acceleration aligned the results with those of higher-income peers.

For the Black and/or Hispanic students in the study, who represented 8.03% of the sample, scores were lower than those of white students; however, they improved when these students participated in cluster grouping programs. Two other service models were also associated with average performance increases: innovative services – practices not included in traditional models but grounded in evidence to meet specific needs – and counseling services. The author concludes that, given the predominantly white and upper-middle-class profile of gifted students identified in the U.S., the intersectional evaluation of programs is essential to promoting equity and addressing the cultural needs of each student (Kuykendall, 2023).

Within the category Theoretical Models Applied to Gifted Education, three articles were identified. Caroleo (2023) presents a revised version of Critical Race Theory in Gifted Education (GTCrit; Novak, 2022), composed of six more concise and self-explanatory principles: (a) center racism, classism, ableism, and sexism: acknowledges that the field of gifted education is historically rooted in biological determinism and hegemonic conceptions that sustain exclusionary practices and restrict access to gifted education; (b) understand giftedness as a property that produces capital: questions the supremacy and symbolic power of whiteness in the processes of identifying and valuing talents; (c) center and elevate the voice of the historically excluded: emphasizes the importance of valuing the perspectives and experiences of gifted Black students; (d) consider intersectionality as a factor that broadens potential and talent: highlights that the intersections of race, class, gender, and other identities shape students' experiences and development; (e) question labels and identification processes: proposes a critique of meritocracy and traditional criteria, which mask structural inequalities; and (f) prioritize and redistribute to the historically excluded: advocates for a commitment to social justice, ensuring access and retention of gifted Black students in specialized services. The revised structure of GTCrit aims to guide pedagogical practices and academic research, although the author did not conduct a systematic literature review to substantiate its potential applications.

Following a similar path of rethinking an existing theoretical model, Hines *et al*. (2023) propose the Culturally Responsive Transformational Giftedness Model. It is based on Sternberg's Transformational Model, which views gifted students as agents of change who use their abilities tô engage with authentic societal challenges. The authors add culturally responsive components, such as the recommendation to use Banks's Multicultural Curriculum Model and Ford's Bloom-Banks Matrix, both oriented toward Black students, with

the goal of transforming services into equitable, antiracist, and culturally responsive spaces. The model seeks to shift the mindset of professionals involved in gifted education, in pursuit of social justice, fostering the retention of Black students in gifted education services.

Middleton and Ford (2022) present Ford's Female Achievement Model for Excellence (F²AME), aimed at the holistic development of gifted Black girls. The objective is to implement preventive and protective strategies that address, in an intersectional way, the social, cultural, and institutional barriers imposed on these students. The article criticizes the recurrence of themes disconnected from the students' cultural universe, which reinforce feelings of inadequacy and incompetence, contributing to dropout from services. As an alternative, the F²AME model is structured in four dimensions: (a) psychological: resilience, self-efficacy, intrinsic motivation, goal orientation, and racial and gender pride; (b) socio-emotional: social sacrifices, introversion, independence, and self-sufficiency; (c) academic: work ethic, academic identity, self-confidence, independence of action, and a flexible and adaptable learning style; and (d) cultural: cultural pride, cultural competence, and biculturalism (Middleton; Ford, 2022, p.119). The model proposes a comprehensive and proactive approach that recognizes the complexity of the experiences of gifted Black girls and provides support for more equitable educational practices.

It is important to note that Critical Race Theory (CRT) has gained prominence in education, and its application has been increasingly extended to gifted education. It is used in four of the 14 articles analyzed (Caroleo, 2023; Coleman, 2020; Collins *et al*., 2022; Fletcher Jr. *et al*., 2023), and eight of them cite its principles, such as intersectionality, differential racialization, counterstorytelling, and social justice (Collins; Roberson, 2020; Ford, 2024; Ford *et al*., 2021; Ford; Tyson, 2024; Hemingway, 2022; Hines *et al*., 2023; Kuykendall, 2023; Middleton; Ford, 2022).

Regarding the category Pedagogical Models and Curricular Practices Aimed at Equity, which are more directly related to culturally responsive practices, 12 articles address the importance of adopting a culturally responsive curriculum (Bright; Calvert, 2023; Coleman, 2020; Collins *et al*., 2022; Collins; Roberson, 2020; Dexter *et al*., 2021; Fletcher Jr. *et al*., 2023; Ford, 2024; Ford; Tyson, 2023; Hemingway, 2022; Hines *et al*., 2023; Kuykendall, 2023; Middleton; Ford, 2022). However, five articles explore the subject in greater depth. Collins *et al*. (2022) present the Culturally Responsive Multi-Tiered System of Support (CR-MTSS), a structural model for pedagogical planning focused on gifted students of color. The objective is to develop self-concept, self-esteem, and self-efficacy through a culturally

relevant and responsive curriculum, fostering learning, persistence, and retention of these students. The model is organized into three levels: Tier I – Contribution Approach (Universal Support): inclusion of cultural themes and references in the curriculum, such as heroes from marginalized groups and ethnic celebrations, expanding representation and building a foundation of cultural recognition for all students; Tier II – Transformation Approach (Developmental Enrichment): support for students who require specific assistance, focusing on deepening prior knowledge and strengthening individual potential, promoting critical analysis and appreciation of diversity; and Tier III – Social Action Approach (Extended Enrichments): learning experiences that foster the internalization of content and the connection between school knowledge and students' lived experiences, contributing to the formation of a positive academic identity. The CR-MTSS proposes a flexible teaching structure, based on enrichment and cultural responsiveness, which seeks to address students' unique needs and moving beyond rigid and standardized planning models.

Coleman (2020) developed the D-STEM Equity Model, aimed at diversifying the STEM (Science, Technology, Engineering, and Mathematics) education-to-career pathway. The research was conducted in Illinois, U.S., and combined two qualitative studies: one on motivational factors for the engagement of Black and Latino students in STEM (281 participants) and another on strategies for addressing racial issues in STEM (415 participants). The study identified eight factors that contribute to racial inequity in STEM education and career development: gaps in vision, opportunity, cultural perception, STEM education, generational, economic, identification, and STEM training for educators (Coleman, 2020, p. 290-291). It also highlighted five factors as enhancers of engagement: early exposure to STEM knowledge, a culturally responsive STEM curriculum, conversations about race, personalized assessment, and leadership development in STEM. The model seeks global application by offering equitable strategies for the development of these students, and highlights the need for collaborative, policy-driven strategies to ensure equity.

Dexter *et al*. (2021) investigated Black male university students who were academically and athletically gifted, with the objective of presenting the Scholar-Baller Model, focused on the development of these two areas of talent. The model was grounded in themes such as racism, structural inequality, stereotype adoption, and racial socialization. It emphasizes the need for pedagogical intentionality to accelerate academic and athletic skills and to integrate social aspects that strengthen academic commitment as students' identities are shaped in relation to their areas of interest. Academic and athletic success in higher

education would involve three main groups: (a) goals and commitment; (b) academic and social environment integration; and (c) pre-college experiences and characteristics. All of these aspects must be integrated with the student's cultural factors. The application of the model requires joint action among gifted education teachers, parents, and coaches, with the goal of nurturing and supporting students' dual identities and multipotentiality, thereby expanding potential in both areas of talent.

Bright and Calvert (2023) analyzed the implementation of the OCCAMS Project (Online Curriculum Consortium for Accelerating Middle School) in Ohio, United States. The project offered an online accelerated English language course for seventh- and eighth-grade public school students with high potential from low socioeconomic backgrounds (67% Black). These students had not demonstrated performance aligned with state guidelines for gifted education services. The research used mixed methods of analysis: quantitative analysis to examine changes in academic performance compared to non-participating peers, and qualitative analysis through student surveys and teacher interviews. Before the COVID-19 pandemic, the service was hybrid, shifting to a fully online model during the pandemic. The curriculum adopted was culturally responsive.

The quantitative results indicated high academic performance among participating students, who outperformed both peers in the next grade level and those in high-performing schools. The program received positive evaluations, with reports of greater independence in learning (61% in 2020 and 64% in 2021), improvement in reading analysis and comprehension (53% in 2020 and 61% in 2021), and enhanced writing skills (55% in 2020 and 66% in 2021). The use of technology was widely identified as a facilitator of learning, with few obstacles reported. Content involving technology was considered students' preferred learning experiences. The authors also note that technology expands access to advanced learning opportunities for underrepresented students who would otherwise lack such access due to their schools' locations or limited resources. The study therefore highlights the importance of addressing barriers beyond identification to promote equity in gifted education (Bright; Calvert, 2023).

Ford (2024) presents the REAL pedagogical model as a decolonial and culturally responsive approach to using children's literature to promote racial pride, empathy, equity, and academic achievement among Black children and other minoritized groups. The acronym REAL refers to four thematic axes that should intentionally guide pedagogical planning: racial pride – seeing themselves in books strengthens children's racial identity and broadens

empathy toward cultural diversity; equity – emphasizes the importance of considering cultural differences, moving beyond mere equality of content and approaches; achievement – Black students can enhance their academic performance through multicultural literature; liberation – proposes the decolonization of pedagogical practices through literature, encouraging recognition, critical analysis, and deconstruction of the power structures that sustain racism. In addition to the model, the author offers criteria for book selection, suggesting attention to the positive representation of Black characters, authentic illustrations, respectful language, absence of stereotypes, encouragement of critical thinking, creativity, and thematic balance. The REAL model proposes a critical and intentional pedagogical shift capable of reflecting diversity and fostering belonging and identity affirmation among students.

The category Teacher Training also stood out in the analyses, with 12 articles on the topic (Bright; Calvert, 2023; Caroleo, 2023; Coleman, 2000; Collins; Roberson, 2020; Collins *et al*., 2022; Dexter *et al*., 2021; Fletcher Jr. *et al*., 2022; Ford, 2024; Ford *et al*., 2021; Hemingway, 2022; Hines *et al*., 2023; Middleton; Ford, 2022). However, two articles place greater emphasis on this theme. Ford *et al*. (2021) describe ten characteristics of culturally responsive services for Black students, outlining a set of professional commitments that go beyond equity discourse. These include recognizing students' active role in confronting injustices and social barriers and supporting them in transforming their realities. Family participation and trusting relationships between schools, students, and their families are also considered essential for improving performance. Educators are expected to understand students' culture and community, expand opportunities for talent development among disadvantaged populations beginning in early childhood, and engage in continuous professional development, including self-reflection on biases when identifying gifted Black students. The authors further highlight the importance of implementing culturally responsive curricula and instruction, ensuring that Black students find relevance in what they learn and how they are taught. Finally, they stress the need for diversity among teaching staff, as representation demonstrates the significance of these professionals in the lives of Black students. Collectively, these characteristics represent ethical behaviors expected of specialized education professionals, moving beyond abstract knowledge of equity to emphasize the active defense of it.

Ford and Tyson (2023) address the need to incorporate cultural and ethnic diversity into gifted education services, including the study of Black history and culture. The inclusion of multicultural literary works can foster greater self-awareness, racial pride, and a deeper

understanding of the world, benefiting all students. For books to effectively promote development, several recommendations should be considered. Black characters should be portrayed carefully, avoiding deficit-based narratives and negative stereotypes. Illustrations must be authentic, reducing or eliminating harmful stereotypes, addressing issues such as colorism, and avoiding potentially offensive artifacts. The terminology used to describe Black characters must not be deficit-oriented, and offensive terms should neither be ignored nor trivialized. Likewise, the story's setting should not reinforce prejudice or stereotypes but instead reflect the diversity of Black experiences. The authors emphasize that selected literature should be relevant and timely for students both personally and academically. At the multicultural level, it should also promote empathy and compassion, encouraging students to become agents of social justice. In terms of rigor, literature should stimulate critical thinking, creativity, and problem-solving, while fostering reflection on personal biases and openness to alternative perspectives. Finally, it is important to balance readings and discussions to dismantle distortions and avoid an excessive, controversial, or stereotypical focus. Ford and Tyson conclude that literature should serve as a transformative factor, capable of triggering real change in students, whether by developing empathy or strengthening self-esteem.

Another category was the Identification of Challenges and Recommendations for Future Policies and Practices, with two articles. Fletcher Jr. *et al*. (2023) investigated how school stakeholders (school professionals and community partners) promoted the performance and broad participation of Black high school students in STEM careers, with a focus on engineering, at a school with 99% Black students. The qualitative research centered on initiatives for Black male students at Stanton Academy, United States. Eleven virtual focus groups were conducted during the COVID-19 pandemic, totaling 31 participants, including six Black male students. Data interpretation showed that school stakeholders demonstrated genuine commitment to students' success. The school advisory board – a group of community members including university professors and industry leaders – had a pivotal role in connecting local resources and opportunities. This board was responsive to students' needs, providing social and cultural capital resources to support their success. Among the initiatives developed were simulated job interviews, opportunities to shadow professionals, and internship experiences, as well as connections with Black engineers who served as role models. The board also invested in teacher professional development, aligned with the demands of the contemporary labor market. Other efforts sought to overcome challenges such as low scores on standardized assessments that act as barriers to entry into engineering

degree programs. To address this, the board created targeted support to build the skills required for success on these exams. Alumni were also included in the program, being invited to contribute to the development and inspiration of the new generation of Black STEM talent. The authors conclude by emphasizing the importance of a culturally affirming environment, developed with the contribution of an active advisory board committed to supporting, developing, and offering opportunities for Black students, thereby challenging deficit-based perspectives often associated with these students.

Collins and Roberson (2020) conducted a qualitative study with four gifted Black male students with abilities in STEM to investigate how their STEM identity and talent are developed. The participants were selected to take part in a school-within-a-school (SWS) magnet program designed to deepen their STEM abilities. Semi-structured interviews were used to capture the students' experiences, and a focus group was conducted to further explore their accounts. STEM identity was defined as the self-perception of the ability to use STEM skills and/or to envision oneself as an innovator or professional in the field. The results showed that the development of this identity was closely linked to the students' strong interest in addressing practical challenges, and that positive attitudes toward their own STEM identity were influenced by early opportunities aligned with their realities. Validation by educators and family members proved crucial for strengthening this identity, as did access to culturally responsive services. Recognizing diversity and valuing individuality in specialized services is important for promoting equity, understanding diversity as a strength and a valuable resource for maximizing the performance of Black students. The study suggests that the model and lessons learned can be applied globally, promoting equitable strategies for the development of STEM talent in underrepresented populations.

4 DISCUSSION

The number of researchers involved in publications on culturally responsive services for gifted Black students highlights how much progress still needs to be made in this field. The growing body of research contributes to promoting equity and ensuring that proposals for culturally responsive services are implemented, evaluated, and disseminated. It is essential to conduct studies that give voice to these students about their experiences in culturally responsive services, enabling the evaluation of existing practices and supporting both the improvement and the development of new evidence-based practices.

In the category Underrepresentation and Barriers to Access and Retention of Black Students in Gifted Education Programs, this was identified as a central and recurring theme across all articles, and it is considered a well-established fact among researchers. Ten of the 14 articles (71.43%) explicitly mention this issue. Regarding the others, even if they do not specifically address the theme, it still guides and underpins the discussions. In the U.S. context, the representation of Black students in gifted programs is approximately 50% lower than that of white students. The most frequent explanations for this include under-referral, the use of inadequate assessment instruments, and identification criteria based on Eurocentric profiles. It is important to note that this difference is not regional but occurs in districts across the country, despite the understanding that specialized services should reflect local demographic characteristics (Bright; Calvert, 2023; Caroleo, 2023; Coleman, 2020; Collins *et al.*, 2022; Collins; Roberson, 2020; Ford *et al.*, 2021; Hemingway, 2022; Hines *et al.*, 2023; Kuykendall, 2023; Middleton; Ford, 2022).

Even when they overcome the barrier of identification, gifted Black students remain at risk due to the low rate of retention in specialized services. Social obstacles, peer pressure, and racial identity are among the factors that negatively affect their continued participation, along with the perception that the curriculum offered is often irrelevant, indifferent, or even hostile to their cultural needs (Caroleo, 2023; Collins; Roberson, 2020; Ford; Tyson, 2024; Hemingway, 2022; Hines *et al.*, 2023; Middleton; Ford, 2022).

Regarding Theoretical Models Applied to Gifted Education, their purpose is to deconstruct oppressive structures and discourses and to reconstruct the autonomy of marginalized groups. CRT is a theoretical framework applicable across various fields of knowledge and has found fertile ground in reflections on education and its specificities, including gifted education. Four articles employ it as a guiding framework for critically analyzing the reality of gifted Black students (Caroleo, 2023; Coleman, 2020; Collins *et al.*, 2022; Fletcher Jr. *et al.*, 2023). Another eight articles draw on its principles to support analyses and reflections – such as intersectionality, differential racialization, counterstorytelling, and social justice – implicitly indicating the use of the theoretical framework (Collins; Roberson, 2020; Ford, 2024; Ford *et al.*, 2021; Ford; Tyson, 2024; Hemingway, 2022; Hines *et al.*, 2023; Kuykendall, 2023; Middleton; Ford, 2022). Collectively, these articles emphasize a common point: the importance of addressing the racial identity of students from minoritized groups.

Two additional theoretical models can be identified: the D-STEM Model (Coleman, 2020) and the Culturally Responsive Transformational Model (Hines *et al*., 2023). Both present concepts and explanations related to the context of gifted education – especially for gifted Black students – emphasizing the importance of adopting culturally responsive practices. Their purpose is to encourage practices that view Black students as agents of transformation of their own reality. Moreover, the use of a multicultural curriculum is recognized as enriching for all students, fostering, among other outcomes, critical thinking and empathy.

Regarding Pedagogical Models and Curricular Practices Aimed at Equity, it is essential to rethink the curriculum offered in specialized services. The goal is to transform the content into something meaningful for learning, with materials in which gifted Black students can see themselves, feel represented through the affirmation of their identities, experiences, and perspectives, and be challenged to think critically based on culturally relevant content (Collins *et al*., 2022; Ford, 2024; Ford *et al*., 2021; Ford; Tyson, 2023; Hemingway, 2022; Hines *et al*., 2023). The inclusion of aspects of Black culture strengthens the racial identity of Black students and directly influences the development of their socioemotional characteristics (Collins *et al*., 2022; Collins; Roberson, 2020; Hines *et al*., 2023). In this way, it helps prevent the intensification of social pressures and the "impostor phenomenon," which often amplify traits of perfectionism and lack of confidence, potentially leading to mental health conditions such as anxiety and depression (Middleton; Ford, 2022). Benefits associated with the strengthening of racial identity were also observed among gifted Black students who excelled academically and athletically, helping them cope with imposed social stereotypes (Dexter *et al*., 2021). It is worth noting that talent can manifest differently across cultures (Hines *et al*., 2023) and that, by incorporating diverse social perspectives, all students can benefit in their socioemotional development, becoming stronger, broadening their life repertoires, and developing critical awareness of the reality in which they live.

The importance of offering teacher training focused on serving gifted Black students is also evident, encompassing cultural development and refinement with the aim of implementing culturally relevant pedagogies (Bright; Calvert, 2023; Caroleo, 2023; Coleman, 2000; Collins; Roberson, 2020; Collins *et al*., 2022; Dexter *et al*., 2021; Fletcher Jr. *et al*., 2022; Ford, 2024; Ford *et al*., 2021; Hemingway, 2022; Hines *et al*., 2023; Middleton; Ford, 2022). Some authors question whether gifted education teachers are adequately prepared to work in multicultural environments (Ford *et al*., 2021), while others emphasize training

directed at implementing a multicultural curriculum (Bright; Calvert, 2023; Collins; Roberson, 2020). Importantly, training also involves professionals' self-reflection on their own biases and prejudices, a necessary condition for Black students to fully develop their potential through strategies and supports that nurture it (Caroleo, 2023; Ford *et al*., 2021). Understanding the characteristics of these students and their culture is essential for identifying them, serving them, and ensuring their retention in specialized services (Ford *et al*., 2021; Hemingway, 2022), contributing to their development as transformationally gifted individuals, that is, individuals committed to making the world a better place (Hines *et al*., 2023). Moreover, such training enables all students, regardless of race, to experience services that provide unique opportunities to learn about diverse cultural experiences and realities, fostering compassion, empathy, and respect for differences (Ford; Tyson, 2023).

5 CONCLUSION

The findings of this review highlight the need to rethink the identification and specialized services for gifted Black students, with the aim of increasing their representation and providing services that are responsive to their needs This approach can ensure recognition and equitable support, fostering retention in programs and services as well as active engagement in the activities offered.

The adoption of culturally responsive practices in specialized educational services fosters inclusion and affirms the potential of gifted Black students. Such models contribute to educational equity and to strengthening the racial identity of minoritized groups. Moreover, they provide pedagogical benefits for all students by broadening perspectives on societal diversity and encouraging critical engagement with the knowledge acquired. Therefore, investing in the continuing education of educators is essential to prepare them to implement culturally responsive pedagogical practices.

The literature review proved to be an important tool for understanding strategies implemented in other contexts. Although the models analyzed were developed predominantly in the U.S., their applicability can be achieved through adaptations to local contexts that take into account the social and cultural diversity of each region.

The absence of Brazilian research highlights a gap in how the country has addressed the representation of Black students in gifted education services, as well as their recognition and support. The predominance of research in the U.S. context underscores the scarcity of national investigations on this subject. The restriction to two databases and the inclusion of

articles only in English and Portuguese are limitations of this study. For future research, it is necessary to expand the databases consulted and to include dissertations and theses, thereby facilitating the identification of new studies.

The findings of this review are expected to contribute to the advancement of research in the Brazilian context, to the formulation of more equitable public policies, and to the awareness of educators regarding the importance of an antiracist perspective in gifted education.

REFERENCES

Abad, A., & Abad, T. M. (2021). Dotação e talento: A tríplice invisibilidade de estudantes negras. Cadernos Macambira, 6(1), 193–203. https://revista.lapprudes.net/CM/article/view/601

Alencar, E. M. L. S. de, Fleith, D. de S., & Carneiro, L. B. (2020). Gifted education in Brazil: Historical background, current practices and research trends. In B. Wallace, D. A. Sisk, & J. Senior (Eds.), The SAGE handbook of gifted and talented education (pp. 432–445). SAGE. https://doi.org/10.4135/9781526463074.n36

Almeida, S. L. de. (2019). Racismo estrutural. Pólen.

Basto, R. M. P. (2018). Identificação e promoção do talento feminino: Conhecendo trajetórias e despertando potenciais [Tese de doutorado, Universidade de Brasília]. Repositório Institucional da UnB. http://repositorio.unb.br/handle/10482/32052

Bright, S., & Calvert, E. (2023). Educational technology: Barrier or bridge to equitable access to advanced learning opportunities? Gifted Child Today, 46(3), 187–200. https://doi.org/10.1177/10762175231168711

Caroleo, S. A. (2023). A revised GTCrit framework: A broadened critical lens for gifted and advanced education settings. Berkeley Review of Education, 12(2), 81–108. https://doi.org/10.5070/B812260162

Coleman, A. (2020). D-STEM equity model: Diversifying the STEM education to career pathway. Athens Journal of Education, 7(3), 273–296. https://digitalcommons.imsa.edu/pres_pr/39/

Collins, K. H., Coleman, M. R., & Grantham, T. C. (2022). A bioecological perspective of emotional/behavioral challenges for gifted students of color: Support needed versus support received. Journal of Emotional and Behavioral Disorders, 30(2), 86–95. https://doi.org/10.1177/10634266221076466

Collins, K. H., & Roberson, J. J. (2020). Developing STEM identity and talent in underrepresented students: Lessons learned from four gifted Black males in a magnet school program. Gifted Child Today, 43(4), 218–230.

https://doi.org/10.1177/1076217520940767

D'Adesky, J. (2022). Uma breve história do racismo: Intolerâncias, genocídio e crimes contra a humanidade. Cassará Editora.

Delgado, R., & Stefancic, J. (2021). Teoria crítica da raça: Uma introdução (3ª ed.). Contracorrente.

Dexter, M. R., Collins, K. H., & Grantham, T. C. (2021). Extending the scholar baller model to support and cultivate the development of academically gifted black male student-athletes. Gifted Child Today, 44(4), 203–215. https://doi.org/10.1177/10762175211030528

Donato, H., & Donato, M. (2019). Etapas na condução de uma revisão sistemática. Acta Médica Portuguesa, 32(3), 227–235. https://doi.org/10.20344/amp.11923

Fletcher, E. C., Hines, E. M., Ford, D. Y., Grantham, T. C., Moore, J. L., III, & et al. (2022). The school stakeholder community as a source of capital for the talent development of black students in a high school engineering career academy. European Journal of Training and Development, 47(3/4), 387–403. https://doi.org/10.1108/EJTD-11-2021-0195

Ford, D. Y. (2021a). Multicultural gifted education (2nd ed.). Routledge. https://doi.org/10.4324/9781003236788

Ford, D. Y. (2024). Beyond lip service: Decolonizing children's literature for promoting racial pride, equity, achievement, and liberation (REAL). Literacy Research: Theory, Method, and Practice, 73(1), 47–56. https://doi.org/10.1177/23813377241285816

Ford, D. Y., Davis, J. L., Whiting, G. W., & Moore, J. L., III. (2021). Going beyond lip service when it comes to equity: Characteristics of equity-minded, culturally responsive allies in gifted and talented education. Gifted Child Today, 44(3), 174–178. https://doi.org/10.1177/10762175211011210

Ford, D. Y., & Tyson, C. A. (2024). Preparing educators of gifted and talented students to decolonize children's literature. Gifted Child Today, 47(1), 74–78. https://doi.org/10.1177/10762175231205906

Ford, D. Y., Young, J. L., Wrights, B. L., & Goings, R. B. (2020). Honoring differences: Improving the representation of culturally different gifted students based on equity. In B. Wallace, D. A. Sisk, & J. Senior (Eds.), The SAGE handbook of gifted and talented education (pp. 59–69). SAGE.

Gomide, F. B., & Garcia, A. I. (2022). Meninas negras em programas para educação de superdotados: Uma revisão de literatura. Revista Iberoamericana de Educación, 89(1), 127–145. https://doi.org/10.35362/rie8814842

Hemingway, S. (2022). Referral, identification, and retention of underrepresented gifted students. International Journal for Talent Development and Creativity, 10(1/2), 205–216. https://doi.org/10.7202/1099953ar

Hines, E. M., Ford, D. Y., Middleton, T. J., Fletcher, E. C., Moore, J. L., III, Wright, B. L., & Grantham, T. C. (2023). Good trouble, necessary trouble: Adding culture to transformational gifted and talented students and programs. Roeper Review, 45(3), 150–160. https://doi.org/10.1080/02783193.2023.2212370

Kuykendall, T. M. (2023). Intersectional program evaluation: Considering race, class, sex, and language in gifted program effectiveness. Education Sciences, 13(7), Article 719. https://doi.org/10.3390/educsci13070719

Middleton, T. J., & Ford, D. Y. (2022). An implementation of culturally responsive protective factors to meet the needs of girls of color in gifted and talented education. Gifted Child Today, 45(2), 117–121. https://doi.org/10.1177/10762175211070053

Mun, R. U., Larriviel, G., Johnson, R., & Stewart, A. (2024). Identifying and serving culturally, linguistically, economically, and geographically diverse gifted underachievers. In K. H. Collins, J. J. Roberson, & F. H. R. Piske (Eds.), Underachievement in gifted education: Perspectives, practices and possibilities (pp. 175–190). Prufrock Press. https://doi.org/10.4324/9781003369578-16

National Institute for Educational Studies and Research Anísio Teixeira (Brasil). (2024). Sinopse estatística da educação básica 2024. https://www.gov.br/inep/pt-br/acesso-a-informacao/dados-abertos/sinopses-estatisticas/educacao-basica

Novak, A. M. (2022). Not white saviors, but critical scholars: The need for gifted critical race theory. In J. L. Nyberg & J. A. Manzone (Eds.), Creating equitable services for the gifted: Protocols for identification, implementation, and evaluation (pp. 246–262). IGI Global. https://doi.org/10.4018/978-1-7998-8153-7.ch016

Pérez, S. G. P. B., & Freitas, S. N. (2014). Políticas públicas para as altas habilidades/superdotação: Incluir ainda é preciso. Revista Educação Especial, 27(50), 627–640. https://doi.org/10.5902/1984686X14274

Reis, S. M., & Renzulli, J. S. (2009). Myth 1: The gifted and talented constitute one single homogeneous group and giftedness is a way of being that stays in the person over time and experiences. Gifted Child Quarterly, 53(4), 233–235. https://doi.org/10.1177/0016986209346824

Renzulli, J. S., & Reis, S. M. (2021). The three ring conception of giftedness: A change in direction from being gifted to the development of gifted behaviors. In R. J. Sternberg & D. Ambrose (Eds.), Conceptions of giftedness and talent (pp. 335–355). Palgrave Macmillan.

Silva, T. S. e, & Anjos, M. B. dos. (2022). Formação de professores e inclusão de pessoas com altas habilidades ou superdotação: Um debate na educação profissional e tecnológica. Revista Vértices, 24(2), 622–633. https://doi.org/10.19180/1809-2667.v24n22022p622-633

Worrell, F. C., & Dixson, D. D. (2018). Recruiting and retaining underrepresented gifted students. In S. I. Pfeiffer (Ed.), Handbook of giftedness in children: Psychoeducational

theory, research, and best practices (2nd ed., pp. 209–226). Springer. https://doi.org/10.1007/978-3-319-77004-8_13