

How the Diagnosis of Giftedness Shapes Students' Self-Perception in Inclusive School Settings: A Systematic Literature Review.

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Abstract (NL)

Deze systematische literatuurstudie onderzoekt hoe de diagnose van hoogbegaafdheid de zelfperceptie van hoogbegaafde leerlingen beïnvloedt binnen inclusieve onderwijsomgevingen. Hoewel de diagnose van hoogbegaafdheid vaak als positief wordt beschouwd, blijven de effecten ervan op de zelfperceptie van deze leerlingen onduidelijk. In dit onderzoek is een systematische literatuurstudie uitgevoerd waarbij acht studies, gepubliceerd tussen 2005 en 2023, zijn geselecteerd op basis van vooraf vastgestelde inclusie- en exclusiecriteria. Deze studies zijn vervolgens gescreend en geanalyseerd met behulp van een thematische analyse. De resultaten onthullen drie overkoepelende thema's: (1) de diagnose van hoogbegaafdheid als neutrale of positieve invloed op academische zelfperceptie, (2) de diagnose als gemengde invloed op het sociaal-emotionele domein van zelfperceptie en (3) de diagnose als invloed op de lange termijn op de zelfperceptie. Daarnaast wijzen de resultaten op mogelijke modererende factoren, zoals het niveau van hoogbegaafdheid, profielen van emotionele intelligentie (EI), ADHD, relaties met leeftijdsgenoten en druk vanuit ouders of leraren. Deze factoren kunnen de manier waarop de diagnose de zelfperceptie van hoogbegaafde leerlingen beïnvloedt, mede bepalen. Hoewel de diagnose van hoogbegaafdheid de academische zelfperceptie kan versterken en onderwijskansen kan bieden, kan het ook bijdragen aan sociaal-emotionele problemen. Deze variërende resultaten onderstrepen de complexe rol van de diagnose van hoogbegaafdheid en wijzen op het belang van een meer persoonlijke en ondersteunende onderwijsaanpak.

Trefwoorden: diagnosis of giftedness, gifted students, self-perception, inclusive education, systematic literature review

Abstract (EN)

This systematic literature review explores how the diagnosis of giftedness influences gifted students' self-perception within inclusive school settings. While the diagnosis of giftedness is often considered beneficial, its effects on gifted students' self-perception remain unclear. This study conducted a systematic literature review in which eight studies, published between 2005 and 2023, were selected based on predetermined inclusion and exclusion criteria. These studies were screened and analyzed using a thematic analysis. The results reveal three overarching themes: (1) the diagnosis of giftedness as a neutral or positive influence on academic self-perception, (2) the diagnosis as a mixed influence on socio-emotional domains of self-perception, and (3) the diagnosis as a long-term influence on self-perception. In addition, the results indicate possible moderating factors, such as level of giftedness, emotional intelligence (EI) profiles, ADHD, peer relationships, and pressure from teachers or parents. These factors may shape the influence of the diagnosis of giftedness on gifted students' self-perception. While the diagnosis of giftedness can strengthen academic self-perception and provide educational opportunities, it may also contribute to socio-emotional difficulties. These mixed results highlight the complex role of the diagnosis of giftedness and call for a more individualized and supportive educational approach.

Keywords: diagnosis of giftedness, gifted students, self-perception, inclusive education, systematic literature review

Inclusive education has emerged as a fundamental principle for international educational policy with a guiding main goal “that schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions” (UNESCO, 1994). The idea of inclusive education gained worldwide attention after the *Salamanca Statement and Framework for Action on Special Needs Education* published by UNESCO in 1994. Over 90 governments and 25 international organizations agreed to treat all students equally by making education accessible for all students, regardless of diverse learning needs. This worldwide implementation was the beginning of recognizing children’s diversity as a strength, rather than a challenge. UNESCO’s ambitious goals were clearly defined to “change discriminatory attitudes, in creating welcoming communities and in developing an inclusive society” (UNESCO, 1994).

In 2015, the United Nations (UN) emphasised the importance of inclusive education again by implementing it in Goal 4 of the Sustainable Development Goals (SDGs), which states: “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (United Nations, 2015). The UN named the complete agenda “a plan of action for people, planet and prosperity. It also seeks to strengthen universal peace in larger freedom” (United Nations, 2015). This emphasised the importance of the 17 Sustainable Development Goals and 169 related targets for international policymaking. The principle of inclusive education has been centralized in Goal 4, reaffirming its importance for equal education worldwide. Not only for students with disabilities, but for all students with diverse learning needs, including gifted students.

Although often overlooked within students with diverse learning needs, gifted students are part of this diversity (Prior, 2011). Based on their advanced cognitive abilities, peers can see them as outsiders and gifted students can suffer from stigmatization and social isolation,

especially in inclusive classrooms (Striley, 2014). Studying gifted students in inclusive school settings is therefore essential, to investigate how certain labels may unintentionally isolate students instead of including them in the classroom.

Previous research on the topic reveals more difficulties for gifted students in inclusive school settings. Since the beginning of inclusive education, gifted students are facing more problems within inclusive school settings, because of the traditional focus on students with disabilities (Tirri & Laine, 2017). Even when teachers adapt their teaching to the diverse needs of gifted students, the emotional needs of gifted students are often overlooked (Prior, 2011). A factor influencing this is the diagnosis of giftedness, which is often seen as beneficial due to the opportunities it provides for children. However, the negative effects of the diagnosis of giftedness are often overlooked (Klimecká, 2023).

Research on gifted students often focuses on cognitive and academic aspects, while problems on the social-emotional domain are misunderstood and have divided the gifted education sector (Rinn, 2024). Additionally, broader research on the social-emotional domain shows that several mental health problems in childhood have become highly prevalent over the last decades (Polanczyk et al., 2015). Adding on to this, Wolf and Schmitz (2024) found in a systematic review of 69 studies that the COVID-19 pandemic decreased psychological well-being and increased mental health problems among children and adolescents. These developments highlight the need to understand how key educational experiences, including diagnoses and classroom dynamics, shape gifted students' psychological outcomes.

A concept closely related to students' psychological development is self-perception, yet its relationship with giftedness remains unclear. Self-perception is defined as an individual's perception of themselves, but in existing literature the definition of self-perception is often mixed

up or used inconsistently (Shapka & Khan, 2018). Since Shavelson et al. (1976) proposed a multidimensional and hierarchical model of self-perception, their model has been used widely. This model states that self-perception can be measured across different dimensions, such as academic, behavioral, and social self-perception. Widely used concepts like self-esteem, self-concept or self-efficacy, are often discussed in relation to self-perception, with each focusing on different dimensions. While self-concept is more related to the image of oneself in different domains, self-esteem refers to the more general sense of worth of oneself (Shapka & Khan, 2018). In this systematic literature review, self-perception is treated as an overarching term including widely used related terms like self-esteem, self-concept or self-efficacy.

This broad and sometimes unclear conceptualization of self-perception has led to mixed results in previous research. For example, Wiley (2020) found several studies showing that gifted students have higher and better self-perceptions than their non-gifted peers. However, Wiley (2020) also includes studies that report varying results for different subdimensions within self-perception, like academic, behavioral, and physical self-perception. In addition, existing research also reports mixed results regarding the psychological well-being of gifted students, with both benefits and difficulties in the socio-emotional domain as a result of a diagnosis of giftedness (Neihart, 1999; Vialle et al., 2007). Further illustrating the complex relation between gifted students and their self-perceptions, Adams-Byers et al. (2004) compared the perceptions of gifted students in homogeneous and heterogeneous (inclusive) classrooms. While students do experience academic advantages in homogeneous classrooms, they also report socio-emotional difficulties. In inclusive classrooms, students' perceptions were positive in socio-emotional domains, but more negative in other domains. Because of these variations in results, studies call for a more holistic approach when researching gifted students' well-being and self-perception in

inclusive environments (Prior, 2011; Wiley, 2020).

This paper will examine the influence of the diagnosis of giftedness on the broader concept of self-perception of gifted students, focusing on their self-perception after being identified as gifted. Because of the variety of results on gifted students' self-perception within existing literature, and the rising concerns about students' mental health, this systematic literature review aims to research the influence of a diagnosis of giftedness on students' self-perceptions. The research question therefore reads: **How does a diagnosis of giftedness influence students' self-perception in inclusive school settings?**

First, the methodology of this systematic literature review will be presented. Next, the results will be described, followed by the discussion and conclusion. Finally, the reference list and attachments are provided.

Methodology

To explore the influence of the diagnosis of giftedness on gifted students' self-perception, a systematic literature review was conducted. A systematic literature review is a systematic, transparent, and reproducible method to synthesize all relevant accessible studies for answering a specific research question (Lame, 2019; Snyder, 2019). It follows a transparent process which is aimed at reducing bias and increasing the reliability of the result (Gough et al., 2017). This makes the method useful for exploring complex relationships like psychological concepts in education.

The strength of a systematic literature review lies in its transparency and replicable, systematic process, making it a widely used method in scientific research (Lame, 2019; Snyder, 2019). However, a systematic literature review also has its limitations. Because of the systematic, strict process it can be time consuming and may exclude relevant studies which do not meet the

inclusion criteria completely (Snyder, 2019).

Despite these limitations, a systematic literature review was the most comprehensive and fitting method for this study. Given the broad and complex nature of the research question, focusing on psychological, educational, and social dimensions, a structured method was necessary to explore the available studies and identify patterns. This systematic literature review applied the PRISMA guidelines which were last updated in 2020. PRISMA contains empirical systematic guidelines which are considered the highest standard internationally for publishing a systematic review (Page et al., 2021).

The populations described in the literature were selected according to inclusion and exclusion criteria. Most importantly, students had to be identified as ‘gifted’. Because the requirements differ per country and often even per region of a country, there were no strict requirements used. Literature describing students as, for example, ‘above average’ or ‘smart’ was not included for this review. Gifted students between the age of 4 and 18 were included to get a comprehensive and international view of students. Also, the students had to be participating in either primary or secondary inclusive school settings. This meant that literature involving children between the ages of 4 and 18 who were, for example, participating in adult education programmes was excluded, as these contexts were not relevant for this research question. Lastly, inclusive education in this context, was defined as all general types of education used in schools where no exception was made in admission because of any individual diverse learning needs.

To obtain the most comprehensive and relevant sample of data, a search string was developed. After using the search string and adjusting it, the following final search words were used: (“gifted students” OR “gifted*” OR “gifted children” OR “talented” OR “accomplished” OR “skilled”) AND (“gifted label” OR “labeling giftedness” OR “labeling” OR “diagnosis” OR

“identification” OR “classification” OR “naming” OR “recognition”) AND (“self concept” OR “self esteem” OR “self evaluation”) AND (“inclusion” OR “education” OR “inclusive classroom” OR “inclusive education”).

After developing a comprehensive search string and searching the ERIC, PsycInfo and Web of Science databases, a total of 209 studies were found. The last search was conducted on the 19th of March 2025. All of the literature found was extracted and put into Rayyan, a systematic review management platform which is a web-based platform that helps manage and organize studies for systematic screening. The selection process was conducted by 1 researcher. The selection requirements consisted of inclusion and exclusion criteria. By screening the literature from title to abstract to full text, the literature was systematically screened to filter out all irrelevant studies.

Before starting the screening on title, Rayyan scanned the literature for duplicates. 60 duplicates were found, of which 32 got deleted by manually selecting the most comprehensive studies. This left 177 studies. Following this, the titles and abstract were screened. After these two first steps, 12 studies were left. Of the 12 studies, 1 could not be accessed, which left 11 studies. Finally, the remaining 11 studies were read in their entirety to get the most comprehensive idea of relevance. This last step left 8 relevant studies. In this step, information about students' self-perceptions after receiving a diagnosis of giftedness was critically examined. The 3 studies excluded in this last step were not relevant enough because of the lack of distinct focus on the diagnosis of giftedness and self-perception. The selection process is further illustrated in a flowchart in the results section in Figure 1, and the study characteristics of all eight studies are displayed in Table 1.

Once all eight studies relevant to this research question were found, the analysis began.

For this systematic literature review, a thematic analysis was conducted. This six-step method was chosen because of the flexibility and its purpose of finding patterns across different studies. The six-step thematic analysis, described by Braun and Clarke (2006), consisted of the following steps: familiarizing with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Because the research question asked for a rich and explorative approach, this type of thematic analysis suited this review very well. Before starting the analysis, full-text PDFs were manually downloaded via open or university access.

To assess the quality and potential bias of the selected studies, the Mixed Methods Appraisal Tool (MMAT) from Hong et al. (2018) was used. The MMAT assesses the quality and bias of qualitative, quantitative, and mixed-methods studies, which was fitting given the methodological diversity of this systematic literature review. Each study was evaluated according to the 2 general screening questions and 5 extra questions intended for qualitative research designs, such as this systematic literature review. Questions were answered with a ‘yes’, ‘no’, or ‘can’t tell’ which eventually gave each study a score. All studies scored sufficiently high, so no studies were excluded.

In order to answer the research question as comprehensively as possible, thematic analysis of the studies revealed three overarching themes related to the impact of the diagnosis of giftedness on gifted students' self-perceptions. The codes, subthemes, and themes found and created by thematic analysis are shown in Attachment 1. The three main themes that emerged are:

1. The diagnosis of giftedness as a neutral or positive influence on academic self-perception

2. The diagnosis of giftedness as a mixed influence on socio-emotional domains of self-perception
3. The diagnosis of giftedness as a long-term influence on self-perception

The relevant findings from all studies were systematically synthesized into several subthemes and into three main themes. Overall, these themes reveal the challenging and supportive aspects of the diagnosis of giftedness in terms of gifted students' self-perceptions. After exploring these themes, the factors moderating the influence of the diagnosis of giftedness on students' self-perception will be explained more.

Results

Eight studies were conducted in four countries, including the United States (n=3/38%), Spain (n=2/25%), Slovenia (n=1/13%), and Czech Republic (n=1/13%). One study was a systematic literature review which therefore was not conducted in a specific country (Thomson, 2012). All studies met the inclusion criteria for examining the effect of the diagnosis of giftedness on gifted students' self-perceptions. Of the eight studies, four studies used a quantitative design (n=4/50%), three studies used a qualitative design (n=3/38%), and one study used a mixed methods design (n=1/13%). Infantes-Paniagua et al. (2022) used a mixed-methods design by conducting a meta-analysis to analyze 36 different studies on self-concept in gifted students. Klimecká (2002) used a qualitative thematic analysis to analyze the answers from gifted students on open-ended questions, while most other studies focused on surveys or validated instruments. The number of participants ranged from 66 to 404, with all studies including a group of gifted students ranging in ages from 6 to 18 (Berlin, 2009; Košir et al., 2016). Two of the eight studies also included a comparison group, of which one used a

non-identified group of students to control for the comparison of the effects of the gifted label (Foley-Nicpon et al., 2012; Košir et al., 2016).

The findings are presented below, structured by the three overarching themes. The first theme describes the diagnosis of giftedness as a neutral or positive influence on academic self-perception, the second theme describes the diagnosis as a mixed influence on socio-emotional domains of self-perception, and the third theme describes the diagnosis as a long-term influence on self-perception. After exploring these three themes, a second level of the results section discusses the factors that moderate the influence of the diagnosis of giftedness on gifted students' self-perceptions.

The diagnosis of giftedness as a neutral or positive influence on academic self-perception

The first theme produced by the thematic analysis consisted of findings which related to a neutral or positive influence of the diagnosis of giftedness on academic self-perception. The two subthemes that emerged illustrate the ways in which the diagnosis of giftedness can produce limited or neutral effects on academic self-perception and how it strengthens academic self-perception.

Diagnosis of giftedness can produce limited or neutral effects on academic self-perception

Although studies of giftedness often show academic benefits, not every study in this review found this effect to be a significant difference. For instance, Berlin (2009) showed the academic benefits to be present, but less apparent. In her study, different levels of gifted students described how they ranked different attitudes. The results show highly gifted students ranking 'increased self-perception' lower compared to the moderately gifted group. This suggests that perceptions of the academic impact of the gifted label may vary depending on the level of

giftedness and how students relate to the label.

One other study showed no significant difference in academic self-perception between gifted and non-identified students. Casino-García et al. (2021) reported about gifted Valencian students that “there are no differences in academic self-concept” (p.13). The authors further explain: “Focusing on academic self-concept, gifted students achieve good scores, but these do not differ significantly from those obtained by their non-identified peers” (p.13). This suggests that a gifted diagnosis may not always lead to a significantly stronger academic self-perception.

Diagnosis of giftedness can strengthen academic self-perception

The findings on this second subtheme support the idea that being diagnosed with giftedness may strengthen academic self-perception, even if this does not extend to other domains of self-perception. For example, Ritchotte et al. (2015) and Košir et al. (2016) both found significant differences between gifted students and non-identified students on the academic domain of self-perception, which were in favor of the gifted students. Ritchotte et al. (2015) explored differences between gifted students and non-identified high achieving students, where the findings indicated that gifted students “on average, had higher values on the Academic Self-Perceptions Subscale than students in the non-identified high achieving group” (p. 34). Additionally, Košir et al. (2016) also found a significant difference in the academic domain: “The academic domain showed the largest difference: gifted students perceived their academic abilities significantly higher than their non-gifted peers” (p. 142).

The diagnosis of giftedness as a mixed influence on socio-emotional domains of self-perception

The second theme explores the state of gifted student’s self-perception on the social-emotional domain, including both protective and risk factors. The results of the studies

related to this second theme were mixed. While most gifted students report pressure from external factors, and lower self-concept or stigma from their peers, others feel protected by the diagnosis of giftedness. Therefore, this theme is divided into two subthemes: the socio-emotional challenges of a diagnosis of giftedness, and the positive socio-emotional outcomes associated with the diagnosis.

Diagnosis of giftedness is associated with socio-emotional challenges

In contrast to the academic self-perception, gifted students most often experience difficulties in the socio-emotional dimension of self-perception. In the study from Casino-García et al. (2021), research between a group of gifted students and non-identified students clearly shows the differences on multiple domains: “The data also evidences that there were significant differences in the social, family, and physical self-concept. Unidentified students had higher scores than gifted students on the overall dimensions” (p. 12). This suggests that gifted students have more negative experiences on the socio-emotional domain than their non-identified peers.

Additionally, the attribute ranking among gifted students from Berlin (2009), found that gifted students noted external expectations and pressures from others among the most negative perceptions: “The results regarding pressure/expectations of teachers and parents support the findings of Moulton et al. (1998); pressure/expectations from teachers and parents were ranked in the top five negative aspects by both survey groups” (p.221). This emphasises the difficulties gifted students experience because of their diagnosis, which resonates into their socio-emotional development.

The study by Klimecká (2023) showed similar results. Based on data retrieved from 208 Czech gifted students, most problems appeared to occur in the social domain: “Our study has also shown that most of the problems concern the social sphere. Social issues were mentioned by

more than half of the pupils” (p. 916). The issues gifted students named were grouped by reflective thematic analysis in categories such as “Bullying, contempt and envy”, “Segregation from the group”, “They are weird”, and “They use me/I have to tell them the right answers” (p. 910). These findings further demonstrate the social difficulties gifted students experience from persons in their close social environment.

Diagnosis of giftedness is associated with positive socio-emotional outcomes

At the same time, other studies demonstrated positive socio-emotional effects of the gifted diagnosis. Košir et al. (2016) found that there were “no significant differences between gifted students and students not identified as gifted in most of the social acceptance measures ... most of the gifted students were in the popular or average sociometric groups.” (p.142). When looking at how classmates ranked gifted students in social groups, “most gifted students were in the popular or average sociometric groups” (p. 142). This suggests that in some inclusive school settings, the gifted label may help with social affirmation.

In addition, in Berlin's (2009) research on the attitudes of gifted students, most gifted students in both the highly and moderately gifted groups listed social benefits such as ‘enjoying going to class’ and ‘having access to advanced learning opportunities’ among their top five most positive perceptions of being gifted. The gifted label was associated with attributes like “People look up to you” and “Sense of uniqueness” (p. 223). This suggests that the diagnosis of giftedness may give a sense of social value, especially when it is supported by opportunities and recognition within the school environment.

The diagnosis of giftedness as a long-term influence on self-perception

The third and final theme looked at how the diagnosis of giftedness influences gifted students' self-perception in terms of long-term effects, both in terms of risks and opportunities. The

findings report mixed results, with both alarming calls for more research, and hopeful findings related to children's development.

Diagnosis of giftedness is associated with developmental risks

Although none of the included studies were long-term studies, there were several findings that suggested risks for future problems for gifted students. Klimecká (2023), for instance, concluded from her results that the gifted label is a “significant ‘risk factor’, as it brings with it barriers related to the personal, academic, and social sphere of a child, eliminating the full development of the gifted individuals” (p. 917). Gifted students noted the most problems in the social domain of self-perception which are known to have long-term effects, like bullying and social isolation. This suggests that problems because of the diagnosis of giftedness may have negative effects which may grow into worse problems over time.

Additionally, Infantes-Paniagua et al. (2022) found in their meta-analysis that while gifted students showed higher academic self-concept, they “scored significantly lower than non-gifted [students]” on physical self-concept (p. 289). When looking at reasoning for this, the authors suggest “that social stereotypes about giftedness as well as physical activity habits may be some of the reasons for these differences” (p. 290). Such behavioral problems may negatively affect a student's future physical self-concept and health, indicating developmental risk due to the gifted label.

Diagnosis of giftedness is associated with opportunities for growth and optimism

However, not all effects of the diagnosis of giftedness are developmental risks. Students also experience the diagnosis as a source of future benefits. Klimecká (2023) investigated the positive and negative consequences of the diagnosis of giftedness, resulting in students associating the gifted label with a “better future” 65 times in the open-ended questionnaire (p.

910). This shows the awareness gifted students themselves have about the positive effects and suggest the gifted label can help building durability and future goals

Equally, in Berlin's (2009) attribute ranking, gifted students recognized that being gifted gave "greater opportunities" and "special experiences" in school (p. 220). These were the top ranked positive attributes as an effect of being labeled as gifted.

In conclusion, the long-term effects of the gifted label reveal mixed results: developmental risks should be taken very seriously, since the developmental cascade effect on children plays a big role in education. However, the positive effects should also be noted and thought about in order to stimulate more of these effects.

Moderating factors shaping the impact of the gifted diagnosis on self-perception

Taken together, the three overarching subthemes showed the complexity of understanding the effects of diagnosis of giftedness; there seemed to be other factors able to moderate the relationship between the diagnosis and students' self-perception. This is also closely related to the characteristics of the gifted students themselves, which makes the influence of the diagnosis of giftedness more complicated to understand. The factors found in the included studies consist of individual and contextual factors, such as level of giftedness, emotional intelligence, ADHD, peer relationships, and pressure from teachers and parents.

Several studies report individual factors that significantly moderate the influence of a diagnosis of giftedness. Berlin (2009) reported that the level of giftedness may influence the extent to which the diagnosis strengthens academic self-perception, with highly gifted students ranking certain self-perception attitudes lower than their moderately gifted peers.

Similarly, Casino-García et al. (2021) found that different emotional intelligence (EI) profiles can result in different levels of self-perception. Gifted students with high emotional

clarity and regulation scored significantly higher, the authors said about this group “Students in group 1 had higher scores in self-esteem, social, and physical self-concept” (p.12). These findings contrast with the results for non-identified students, where no difference was found between different EI profiles. This suggests that gifted students with high emotional repair may be more likely to feel positive effects because of the gifted label, rather than struggles influencing their socio-emotional view.

Additionally, Foley-Nicpon et al. (2012) found that a coexisting ADHD diagnosis lowered scores of self-esteem and self-concept. The authors wrote: “The gifted students without ADHD had higher self-reported positive self-esteem” (p. 230), based on the behavior assessment instrument BASC-2. This highlights that there are variables which are able to moderate the positive effects of the gifted label on the socio-emotional domain.

In addition to individual factors, several contextual factors were found to moderate the impact of the gifted diagnosis. These include teacher and parental expectations, classroom dynamics, and access to gifted programming (Berlin, 2009; Košir et al., 2016). For instance, Košir et al. (2016) found that positive peer relationships helped support gifted students’ social standing, while Berlin (2009) identified teacher and parent pressure as top-ranked sources of stress related to the diagnosis of giftedness.

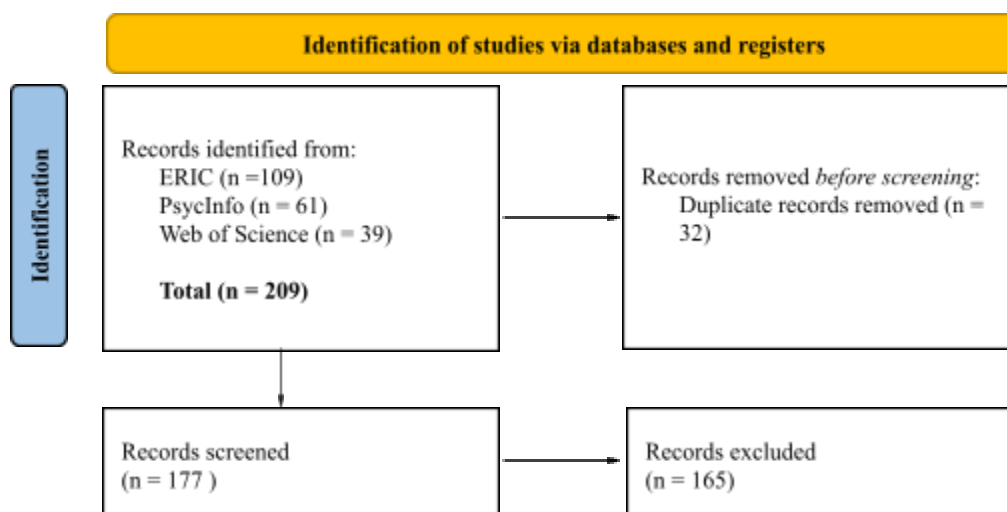
Taken together, the findings suggest that there are several factors that may moderate the influence of diagnosis of giftedness on students' self-perceptions, making the relationship more complex to understand.

Table 1*Study Characteristics*

Authors (year published), research country	Main research aim	Research methods, sample (N, age)	Key findings
Berlin (2009), USA	Investigate gifted students' attitudes toward being gifted	<ul style="list-style-type: none"> - Survey-based attribute ranking (positive/negative) - Gifted students (n=66, 12-14 years) 	<ul style="list-style-type: none"> - Small differences were found between variations of gifted students. - Stigmatizing effects were not found as much.
Casino-García et al. (2021), Spain	Relationship between emotional intelligence and self-esteem/self-concept among gifted and non-identified students	<ul style="list-style-type: none"> - Quantitative surveys - Gifted and non-identified students (n=240, 8-18 years) 	<ul style="list-style-type: none"> - Gifted students score lower on self-concept - No differences were found on academic self-concept. EI profiles showed some protective factors, only for gifted students.
Foley-Nicpon et al. (2012), USA	Compare self-esteem and self-concept of gifted students with	<ul style="list-style-type: none"> - Multiple quantitative assessment tools, MANOVA, and ANOVA 	<ul style="list-style-type: none"> - Gifted students with ADHD had lower scores on self-esteem and

	and without ADHD	- Gifted students with and without ADHD (n=112, 6-18 years)	self-concept - Overall, gifted children report higher happiness than gifted adolescents.
Infantes-Pania gua et al. (2022), N/A	Synthesize studies from 2005-2020 on differences in self-concept between gifted and non-gifted students.	- Meta-analysis - Studies published from 2005-2020	- Gifted students score higher on general and academic self-concept - Gifted students score lower on social and physical self-concept.
Klimecká (2023), Czech Republic	Discover positive and negative consequences of gifted labelling and find coping strategies.	- Open-end questionnaire - Gifted students (n=208, 10-15 years)	- Positive aspects were mainly academic and personal - Negative aspects were mainly social.
Košir et al. (2016), Slovenia	Investigate differences in social acceptance and self-concept between gifted adolescents and non-identified	- Quantitative cross-sectional design using self-report questionnaires (SDQ-II), sociometric peer nominations, and teacher assessments	- Gifted students received less negative nominations and had lower social impact, but were more socially accepted by their teachers.

	adolescents.	- Elementary school students (n=404, 11-15 years)	- No differences were found in social acceptance and general self-concept.
Ritchotte et al. (2016), USA	Comparing gifted and non-identified high achieving students on self-perceptions.	<ul style="list-style-type: none"> - Self-perception rating instrument (SAAS-R) - Gifted, non-identified and non-gifted students (n=203) 	<ul style="list-style-type: none"> - Identified gifted students score slightly higher on academic self-perception than non-identified high achieving students. - On the other self-perception subscales, the two groups scored similar
Thomson (2012), N/A	Investigating the effect of labeling on self-esteem values of exceptional students.	<ul style="list-style-type: none"> - Literature review - N/A 	- Labeling students can negatively influence self-esteem



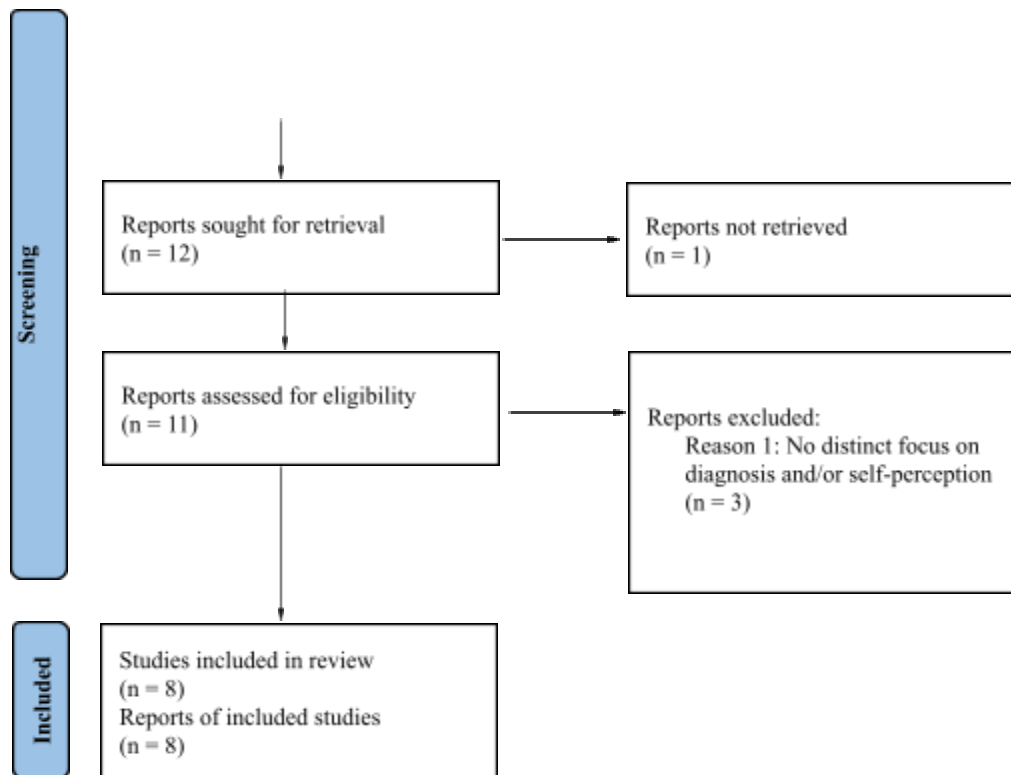


Figure 1
PRISMA 2020 Flow Chart of Study Selection

Discussion

This systematic literature review explored how the diagnosis of giftedness influences gifted students' self-perceptions in inclusive school settings. Overall, the results show that the diagnosis of giftedness can have mixed effects depending on the domain and context.

In the academic domain of self-perception, several studies showed that the diagnosis of giftedness often strengthens the self-perception of gifted students by validating their abilities and providing access to challenging learning experiences (Berlin, 2009; Infantes-Paniagua et al., 2022; Klimecká, 2023). These findings are consistent with previous research on this subject, where several studies reported a higher academic self-perception for gifted students (Adams-Byers et al., 2004; Wiley, 2020). However, the positive effects found in this review were not completely universal; one study in this review reported neutral or limited effects in the

academic domain, suggesting that not all students experience academic benefits from a diagnosis of giftedness (Casino-García et al., 2021).

The socio-emotional domain revealed a more complex and often negative picture. Most gifted students reported negative socio-emotional experiences like peer rejection, pressure from parents and teachers, and feelings of being different or misunderstood (Berlin, 2009; Klimecká, 2023). This aligns with earlier concerns raised by Adams-Byers et al. (2004), and Vialle et al. (2007) about the strong presence of socio-emotional difficulties among gifted students. Similar to the academic self-perception, these negative experiences were not completely universal. Some gifted students described the gifted label as a positive social outcome, associating it with admiration from others, and inclusion in peer groups (Klimecká, 2023). This contrasts with the dominant narrative in previous studies on gifted students which was often dominated by the socio-emotional risks (Rinn, 2024).

Similarly, the long-term effects on gifted students' self-perception showed mixed results. Some studies reported social difficulties and stereotyping of giftedness as problems (Infantes-Paniagua et al., 2022), and other students reported that the diagnosis of giftedness helped them develop and achieve ambitious goals and a sense of purpose (Berlin, 2009; Klimecká, 2023). Previous research, such as Wiley's (2020), have also highlighted this duality and called for a more holistic understanding of how gifted identification shapes student development over time.

A possible explanation for these mixed results can be found in the existence of moderating factors influencing the relationship between the diagnosis of giftedness and gifted students' self-perception. This review found that several individual and contextual factors, such as level of giftedness, emotional intelligence, ADHD, peer relationships, and pressure from

teachers and parents, potentially moderate the relationship between the diagnosis of giftedness and gifted students' self-perceptions (Berlin, 2009; Casino-García et al., 2021; Foley-Nicpon et al., 2012; Košir et al., 2016). While previous studies have focused more on group averages of gifted students, this review adds a new perspective by emphasizing the presence of variation among different individual gifted students.

Conclusion

The results of this systematic literature review demonstrate that the diagnosis of giftedness does influence the self-perception of gifted students. However, this influence is not universal and varies by domain, with the academic domain receiving primarily positive effects and the socio-emotional domain receiving more negative effects. The long-term effects on gifted students' self-perception remain underexplored, which aligns with previous calls for more research on the long-term developmental effects (Neihart, 1999; Wiley, 2020). The findings also demonstrate that the influence of the diagnosis is shaped by a combination of individual and contextual factors.

A key limitation of this review is the relatively small number of studies. This was due to a lack of studies that completely addressed both the diagnosis of giftedness and students' self-perception. Therefore, only eight studies were used in this review. Additionally, all of the studies used cross-sectional designs, limiting the view on long-term developmental effects, which is an issue widely occurring in previous gifted education research (Wiley, 2020; Rinn, 2024). Furthermore, definitions of both giftedness and self-perception varied considerably, which complicated comparison across studies. With regard to the definition of giftedness, most studies do not specify the diagnostic method used to identify gifted students, which may vary widely from teacher nominations and standardized assessments to differing national or institutional

definitions. In terms of definitions of self-perception, previous studies have either named the conceptual inconsistency, or given a useful framework to clarify and narrow the scope of the construct and related terms such as self-concept (Shapka & Khan, 2018; Shavelson et al., 1976).

Given these limitations, future research should explore the long-term effects of the diagnosis of giftedness on students' self-perception and further development. One study even identified the diagnosis as a significant risk factor, emphasising the need for future longitudinal research (Klimecká, 2023). These concerns align with broader trends in previous studies, where authors raised concerns about growing mental health issues among children (Polanczyk et al., 2015; Wolf & Schmitz, 2024).

It is also essential to explore individual and contextual factors moderating the influence of the diagnosis of giftedness on student's self-perceptions, which are not as extensively researched yet. Factors such as emotional intelligence and coexisting ADHD stood out as important moderators for gifted students and need further investigation (Casino-García et al., 2021; Foley-Nicpon et al., 2012). This adds to prior research, where cultural and gender-related factors also showed to be able to influence how gifted students experience the diagnosis (Adams-Byers et al., 2004; Rinn, 2024). Further research is important not only for the gifted students themselves, who should receive the most appropriate support, but also for parents, teachers, and policymakers to create responsive educational environments.

In educational practice, the mixed results from this review suggest that the diagnosis of giftedness should be seen as a starting point for an individualized approach, rather than a direct predictor to success considering the mixed results (Casino-García et al., 2021; Infantes-Paniagua et al., 2022). Professional development for educators should include training on the socio-emotional needs of gifted students, as well as on how to identify when additional support is

needed, even among high-achieving students (Prior, 2011; Rinn, 2024). Inclusive education must be broadened to genuinely include gifted students, not only through differentiation, but also by creating environments where peer acceptance, and mental well-being are supported (Berlin, 2009; Polanczyk et al., 2015).

The most significant conclusion from this review is that the diagnosis of giftedness does not have a straightforward or uniform effect. Its impact on gifted students' self-perception is highly variable and shaped by individual and contextual factors that remain underexplored. This makes the relationship between the diagnosis of giftedness and self-perception complex to understand, because of the variability. While the diagnosis may strengthen academic self-concept, it can also contribute to social difficulties or long-term risks. Nonetheless, findings indicate that the diagnosis of giftedness can serve as a source of growth, resilience and motivation (Berlin, 2009; Klimecká, 2023). This complex relationship emphasises the need for a more individualized approach in both educational practice and future research.

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Attachments

Attachment 1

Thematic analysis

Code	Subtheme	Theme
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Positive academic motivation	Diagnosis of giftedness can strengthen academic self-perception	The diagnosis of giftedness as a neutral or positive influence on academic self-perception
High academic self-concept for gifted students	Diagnosis of giftedness can strengthen academic self-perception	The diagnosis of giftedness as a neutral or positive influence on academic self-perception
High self-perception gifted students	Diagnosis of giftedness can strengthen academic self-perception	The diagnosis of giftedness as a neutral or positive influence on academic self-perception
Giftedness increases academic self-perception	Diagnosis of giftedness can strengthen academic self-perception	The diagnosis of giftedness as a neutral or positive influence on academic self-perception
Gifted and high achieving students similar in motivation, regardless of label	Diagnosis of giftedness can produce limited or neutral effects on academic self-perception	The diagnosis of giftedness as a neutral or positive influence on academic self-perception
No academic advantage	Diagnosis of giftedness can produce limited or neutral effects on academic self-perception	The diagnosis of giftedness as a neutral or positive influence on academic self-perception

Mixed social experiences	Diagnosis of giftedness is associated with socio-emotional challenges	The diagnosis of giftedness as a mixed influence on socio-emotional domains of self-perception
Expectations and pressure from others	Diagnosis of giftedness is associated with socio-emotional challenges	The diagnosis of giftedness as a mixed influence on socio-emotional domains of self-perception
Lower social self-concept	Diagnosis of giftedness is associated with socio-emotional challenges	The diagnosis of giftedness as a mixed influence on socio-emotional domains of self-perception
Gifted label reduces self-esteem	Diagnosis of giftedness is associated with socio-emotional challenges	The diagnosis of giftedness as a mixed influence on socio-emotional domains of self-perception
Emotional intelligence as a protective factor	Diagnosis of giftedness is associated with positive socio-emotional outcomes	The diagnosis of giftedness as a mixed influence on socio-emotional domains of self-perception

Coexisting diagnosis lowers self-perception and happiness	Diagnosis of giftedness is associated with positive socio-emotional outcomes	The diagnosis of giftedness as a mixed influence on socio-emotional domains of self-perception
Social exclusion reduced by gifted label	Diagnosis of giftedness is associated with positive socio-emotional outcomes	The diagnosis of giftedness as a mixed influence on socio-emotional domains of self-perception
Gifted label does not always affect self-perception	Diagnosis of giftedness is associated with positive socio-emotional outcomes	The diagnosis of giftedness as a mixed influence on socio-emotional domains of self-perception
Negative impact of labeling on development	Diagnosis of giftedness is associated with developmental risks	The diagnosis of giftedness as a long-term influence on self-perception
Giftedness associated with opportunities and optimism	Diagnosis of giftedness is associated with opportunities for growth and optimism	The diagnosis of giftedness as a long-term influence on self-perception