## BRAZILIAN PRODUCTION ON TWICE EXCEPTIONALITY: STATE OF KNOWLEDGE FROM 2014 TO 2020

# PRODUÇÕES BRASILEIRAS SOBRE DUPLA EXCEPCIONALIDADE: ESTADO DE CONHECIMENTO DE 2014 A 2020

## PRODUCCIONES BRASILEÑAS SOBRE DOBLE EXCEPCIONALIDAD: ESTADO DEL CONOCIMIENTO DE 2014 A 2020

Josilene Domingues Santos PEREIRA<sup>1</sup> Rosemeire de Araújo RANGNI<sup>2</sup>

**ABSTRACT**: The aim of this article is to present a review of the Brazilian scientific literature on twice exceptionality. Four types of scientific productions were examined (theses / dissertations, articles and papers) from five databases. It was adopted a bibliometric design of productions from 2014 to 2020. The results showed that there is a small production (N = 26), with terminological fluctuations and three categories in the definitions of twice exceptionality. Two of them indicated conceptual problems. It is possible to conclude that this topic has been few contemplated by Brazilian researchers and that the advancement of research and recognition in public policies depend on the use and scientific dissemination of the term twice exceptionality and a definition in keeping with international studies.

**KEYWORDS**: Special education. Twice exceptionality. Giftedness. Scientific production.

**RESUMO**: O objetivo deste artigo é apresentar a revisão da literatura científica brasileira sobre a dupla excepcionalidade. Foram examinados quatro tipos de produções científicas (teses, dissertações, artigos e trabalhos) de cinco bases de dados. Adotou-se delineamento bibliométrico das produções de 2014 a 2020. Os resultados demonstraram uma produção exígua (N=26), com flutuações terminológicas e três categorias nas definições de dupla excepcionalidade. Duas delas indicaram problemas conceituais. Conclui-se que esse tema tem sido pouco contemplado pelos pesquisadores brasileiros e que o avanço das pesquisas e o reconhecimento nas políticas públicas dependem do uso e da divulgação científica do termo dupla excepcionalidade e de uma definição condizente com os estudos internacionais.

**PALAVRAS-CHAVE**: Educação especial. Dupla excepcionalidade. Superdotação. Produção científica.

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<sup>&</sup>lt;sup>1</sup> Federal Institute of Bahia (IFBA), Vitória da Conquista – BA – Brazil. Professora Adjunta no Departamento de Educação. Doutoranda no Programa de Pós-Graduação em Educação Especial. (UFSCar). ORCID: https://orcid.org/0000-0001-5392-9006E-mail: josilenesantos@ifba.edu.br

<sup>&</sup>lt;sup>2</sup> Federal University of São Carlos (UFSCar), São Carlos – SP – Brazil. Docente no Departamento de Psicologia e no Programa de Pós-Graduação em Educação Especial. Doutorado em Educação Especial (UFSCar). ORCID: https://orcid.org/0000-0002-8752-9745. E-mail: rose.rangni@ufscar.com

**RESUMEN**: El propósito de este artículo es presentar una revisión de la literatura científica brasileña sobre la doble excepcionalidad. Se examinaron cuatro tipos de producciones científicas (tesis / disertaciones, artículos y trabajos) de cinco bases de datos. Se adoptó un diseño bibliométrico de producciones de 2014 a 2020. Los resultados mostraron que existe una producción pequeña (N=26), con fluctuaciones terminológicas y tres categorías en las definiciones de doble excepcionalidad. Dos de ellos indicaron problemas conceptuales. Se concluye que este tema ha sido poco contemplado por los investigadores brasileños y que el avance de la investigación y el reconocimiento en las políticas públicas dependen de difusión científica del término doble excepcionalidad y de una definición coherente con los estudios internacionales.

**PALABRAS CLAVE**: Educación especial. Doble excepcionalidad. Superdotación. Producción científica.

### Introduction

Students with high abilities or giftedness<sup>3</sup> are understood as those who have high potential, alone or in combination, in the intellectual, psychomotor, academic, artistic and leadership areas and, in addition, can show creativity, intense involvement with learning and carrying out activities in areas of interest (BRASIL, 2008; 2020)<sup>4</sup>. This definition is based both on multifaceted conceptions of giftedness (GAGNÉ, 2015; RENZULLI, 2018) and on broader notions of intelligence (GARDNER, 1994).

These students are considered the audience of Special Education and, to achieve their full cognitive and socio-emotional development, it is essential that the school recognizes the educational, social, cognitive and emotional needs of these children and young people. For this reason, they need specialized educational resources and support already guaranteed by laws and decrees (BRASIL, 1996; 2011).

Unlike this historical recognition of high skills or giftedness in Brazilian public policies, scientific production on this student population has still been scarce in Brazil (PEDRO *et al.*, 2016). This fact has contributed to the perpetuation of myths and hampered the development of educational proposals (FLEITH; ALENCAR, 2007) and the management of public policies. Virgolim (2007) also argues that, although studies on high abilities or giftedness are not recent in Brazil, they still represent a challenge in the field of education, as

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<sup>&</sup>lt;sup>3</sup> In this study, the term high abilities or giftedness is adopted in line with the Law of Guidelines and Bases of National Education (BRASIL, 1996), amended in 2013. Throughout the text, however, the terminologies will be maintained in direct quotations originals used by authors and documents.

<sup>&</sup>lt;sup>4</sup> The New Special Education Policy: Equitable, Inclusive and with Lifelong Learning, published in the Federal Official Gazette, on 30/09/2020, by Decree n. 10.502, is temporarily suspended by decision of the Federal Supreme Court, ADI 6590.

advances in research are directly related to the adoption of a coherent conception of giftedness.

In addition to this issue, in the literature in the area, another theme has drawn the attention of some Brazilian researchers (ALVES; NAKANO, 2015a; 2015b; 2015c; RANGNI; COSTA, 2014a; RANGNI; COSTA, 2016; TAUCEI; STOLTZ, 2018), which have reported the coexistence of high abilities or giftedness in individuals with visual or hearing impairment or neurodevelopmental disorders, such as dyslexia and Attention Deficit Hyperactivity Disorder, calling this condition a twice exceptionality.

The twice exceptionality is a condition that characterizes a special population in the education area of people with high abilities or giftedness. It has been defined as the coexistence of high abilities or giftedness with a disability/disorder/disturb/syndrome. (FOLEY-NICPON *et al.*, 2011; KAUFMAN, 2018; REIS; BAUM; BURKE, 2014; RONKSLEY-PAVIA, 2015).

There are reports of children with twice exceptionality since 1923, with the publication of the work - *Special Talents and Defects: their significance for education* -, by psychologist and educator Leta Hollingworth. The term twice exceptionality, however, was only coined in 1975 by researcher James Gallagher (PRIOR, 2013). In this publication, Leta Hollingworth describes the characteristics of students who stood out for their superior potential while showing serious and persevering deficits in reading, arithmetic, handwriting, and spelling. (BALDWIN *et al.*, 2015; BAUM; SHADER; OWEN, 2017; KAUFMAN, 2018).

Students with twice exceptionality can either mask their learning difficulties arising from the presence of dyslexia or attention deficit disorder etc. or their superior potentials, so that gifted behaviors are not easily identified (REIS; BAUM; BURKE, 2014). This paradoxical picture is often imperceptible to the eyes of doctors, psychologists, teachers and family members, mainly because these students tend to have low academic performance (OUROFINO; FLEITH, 2011). For this reason, identifying these students is complex, but necessary, with a view to providing appropriate educational and health services for each student. (BAUM; SHADER; OWEN, 2017; GILMAN; PETERS, 2018; KAUFMAN, 2018).

The purpose of this article is to present a review of the Brazilian scientific literature on twice exceptionality, in the 2014-2020 timeframe, to answer the questions that emerge from this contextual framework: How many Brazilian scientific productions were carried out over the 2014-2020 timeframe? What are the keywords most used by Brazilian researchers? What technical-scientific terms have been used in the productions? What are the definitions

proposed by scholars in Brazil? What types of twice exceptionality are investigated by Brazilian researchers and what are the meanings of this survey of scientific production for research in the Brazilian context?

#### Method

Bibliometric analysis allows the identification and characterization of scientific production on a given topic, also allowing the construction of quantitative and qualitative bibliometric indicators. In addition, it provides the state of the art of a specific area of knowledge. (SILVA; HAYASHI; HAYASHI, 2011; HAYASHI, 2013).

The search was carried out in five digital databases: Academic Google, CAPES Periodicals, Digital Library of Theses and Dissertations (BDTD), CAPES Theses and Dissertations Database and the website that provides the Annals of the Brazilian Congress of Special Education (CBEE<sup>5</sup>). Inclusion criteria (full availability of the article, dissertation, thesis and work; the language of production must be written in Portuguese) and exclusion criteria (book chapters; repeated production that did not fit the scope of the research) were adopted.

The selected corpus results from the advanced search strategy (Table 1) and was composed of four academic genres: scientific articles, Theses, Dissertations and Works published in the Annals of CBEE. The search period comprises the last seven years (2014 to 2020). This time frame can provide up-to-date information about the state of the art in relation to research on the subject in the Brazilian scenario.

The scientific productions were organized, analyzed and systematized with the help of the Excel<sup>®</sup> spreadsheet, containing the following variables: temporal distribution, keywords, terminologies, definitions of the term twice exceptionality and types of twice exceptionality studied by the authors in the scientific productions (HAYASHI, 2013).

**Table 1** – Flowchart of selection of scientific productions

Search strategy				
Advanced search, Boolean operator AND				
1 <sup>st</sup> stage: twice exceptionality and double special educational need.				
2 <sup>nd</sup> stage: high skills; giftedness; talent; endowment AND disability /autism spectrum disorder				
/ASD /autism /Asperger's Syndrome /Attention Deficit Disorder /Hyperactivity /ADHD /Learning				
Disorder				
Potentially relevant references	Removed by duplication			
N= 331	N= 87			

<sup>&</sup>lt;sup>5</sup> Due to the pandemic caused by COVID-19, the CBEE was not held in 2020.

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Application of inclusion criteria  Removed for not meeting the inclusion criteria  N= 219				
Google Acadêmico N= 11	BDTD N= 7	CAPES Periodicals N= 1	CAPES Catalogue N= 3	CBEE Annals N= 4
Final <i>Corpus</i> N= 26				

Source: Devised by the authors

#### Results and discussion

## Bibliometric overview: temporal distribution of scientific productions

Regarding the temporal distribution of the 26 productions analyzed, the results indicated that the year 2016 concentrates the greatest quantity (N=8) and variety of productions, making up 30.8% of the total. There is also an inactivity of scientific production in 2017 (N=0). In 2018, there is an absence of dissertations, theses and articles, with only two works presented in the CBEE, which correspond to 7.7% of the period's production (Figure 1).

Articles Dissertations ■ Theses ■ Works presented at CBEE 00 000 00 000 0000 2014 2015 2016 2019 2017 2018 2020

Figure 1 – Annual distribution of the absolute frequency of scientific productions

Source: Devised by the authors

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The absence of scientific productions in 2017, and the publication of two papers presented at the CBEE, in 2018, seem to indicate a retraction in the flow of scientific research around this theme. However, with the appearance of productions in 2019 and 2020, it is evident, albeit timidly, the continuity of studies on the double exceptionality in Brazil.

It is also worth noting that, in 2020, there were only articles published compared to 2019, which was characterized by the production of dissertations only. When performing a comparative analysis of scientific production over this period, it is observed that, until the

year 2016, there was, despite the scarce production on twice exceptionality in Brazil, a variety of scientific works, divided into articles, theses, dissertations and congress works. From 2017, in addition to the decrease in the amount of production (N=9), considering the four years, there was also a decrease in the variety of types of work in each year, which, in fact, exemplifies a sharp retraction in scientific production about the theme.

The data collected show that investigations on twice exceptionality in Brazil are scarce (ALVES; NAKANO, 2015a) and still demonstrate the scarcity of production in the area of high abilities or giftedness (FLEITH; ALENCAR, 2007; VIRGOLIM, 2007), considering the dual exceptionality as one of the lines of investigation within this area.

Some researchers (BAUM; SHADER; OWEN, 2017; KAUFMAN, 2018) point out that students with twice exceptionalities need to be identified, so that care services can be designed for their educational needs. With a tiny number of research on twice exceptional students in Brazil, how to identify them, promoting school inclusion? How to establish dialogues between research, public policies and educational practices for the recognition and service of this public?

In addition, it is noted that the lack of explicit mention of this condition in educational legislative documents (BRASIL, 2001; 2008; 2011) may be corroborating both to the lack of studies and the absence of identification and service to this group of students. It is worth emphasizing that students with dual exceptionality have their own emotional, educational and social characteristics and different from other groups established as Special Education audiences, as they require two types of educational services: curriculum enrichment and psychoeducational intervention (BALDWIN et al., 2015; BAUM; SHADER; OWEN, 2017; KAUFMAN, 2018).

## Bibliometric overview: the 20 most used keywords in scientific production

Keywords make it easy to index your work on online search platforms. In order to assess whether this term has been indicated as a keyword, which summarizes the central idea of scientific productions, we sought to verify which were the twenty most used keywords in scientific productions (Figure 2).

Figure 2 Wordcloud of the 20 most frequent words in the Keywords section



Source: Devised by the authors

As shown in Figure 2, the term twice exceptionality (dupla excepcionalidade) does not appear as the most cited, even considering the specificity of the theme in the twenty-six (N=26) productions analyzed. The little use of this term in the Keywords section of scientific productions can be explained by the fact that, in the controlled vocabulary of Brazilian *Thesaurus* of Education, the term is not yet indexed, which directly affects the process of retrieving documents and information related to a particular area of knowledge.

It is also understood that the absence of indexing compromises not only the consolidation of the term twice exceptionality in scientific research nationwide, but also leads to a retraction of its dissemination among researchers and education and health professionals. This data may further corroborate the invisibility of the theme and, consequently, the non-recognition of this condition among Brazilian education students, which, in a way, so far, has been reinforced by some educational public policies that also do not mention explicitly this group of students (BRASIL, 2001; 2008; 2011).

### Bibliometric overview: terminologies used by the authors

As shown in Figure 3, four different terms were used to indicate this condition in the individual (dual special educational needs [duplicidade de necessidades educacionais especiais], double special educational need [dupla necessidade educacional especial], double condition [dupla condição], twice exceptionality [dupla excepcionalidade]) and that, in three productions (N=3), there was no mention of the term, although the double exceptionality has been the object of study of the three studies.

In the Brazilian scenario, the use of the term twice exceptionality by researchers on this topic represents 70% of the total scientific production, which clearly does not explain the fact that this term is not yet indexed in the controlled vocabulary Brazilian Thesaurus of Education. There is also a disagreement between research and educational public policies, which indicate a dissociation between the term used in the scientific field and the various laws and decrees of Special Education in Brazil. The public with twice exceptionality, albeit in a scarce way, has been considered in Brazilian investigations, but has not been explicitly mentioned in public policies.

Duplicidade de Necessidades
Educacionais Especiais
Dupla Necessidade
Educacional Especial
Dupla Excepcionalidade

Dupla Condição

No specific term used

Figure 3 – Terms used by authors to indicate twice exceptionality

Source: Devised by the authors

In addition, it is also noted the presence of other terms to indicate this condition (dual educational needs, double condition and double special educational need). It is understood that this terminological fluctuation, in 15.4% of the productions, tends to present itself when research begins to be carried out, indicating an initial stage, emerging from the topic (TAUCEI; STOLTZ, 2018).

According to Ronksley-Pavia (2015), the term has still been often used carelessly to designate children with two disabilities, which does not indicate a situation of double exceptionality, since there is no presence of high abilities or giftedness. For this author (2015), the term has also been used only to designate students with high abilities or giftedness and learning disabilities, thus disregarding other types of combination between the two conditions necessary to constitute a situation of twice exceptionality.

It is also necessary to emphasize, as argued by Baum, Shader and Owen (2017), that the twice exceptionality is not fundamentally characterized by the amount of exceptionalities, but by the paradoxical and often symbiotic relationship, which is formed from the junction of gifted traits and behaviors with a disability or disorder/disturb or syndrome. Thus, it can be

inferred that the use of the term double condition cannot by itself represent this dual and, at the same time, paradoxical relationship of twice exceptionality.

In Brazil, it is further deduced that the use of this term does not represent a consensus, since the Guidelines and Bases for Elementary and High School Education, Law 5.692, of 1971, the word exceptional was no longer used to indicate the people who should be assisted by Special Education. Furthermore, since 1986, the term has been definitively replaced from official documents by the term student with special needs. Currently, the term Target Audience for Special Education is used to designate people with disabilities, with pervasive developmental disorders and with high abilities or giftedness and who must receive specialized educational care. Thus, the word exceptional, for a little over three decades, has not appeared in official texts of public policies in Brazilian education (MASSUDA; RANGN, 2017).

It is necessary to emphasize, however, that the exclusion of this term in official documents of Brazilian education has a negative impact on the work of school inclusion and on proposals to meet the needs of students who have the coexistence of high abilities or giftedness with a disability, disorder, or syndrome. The lack of a specific term that expresses the nature of the phenomenon tends to generate, among Brazilian educators, the absence of mechanisms for identifying this condition and, consequently, the lack of attention to the special educational needs of students with this profile. The term Target Audience of Special Education, therefore, does not encompass these students and cannot stipulate the specific nature of the various types of conditions in which there can be twice exceptionality (MASSUDA; RANGN, 2017).

It is also worth noting that 11.5% (N=3) of the studies did not use the term, even though it is the central object of the investigation. This last result may reflect the still emerging scenario in Brazilian research (TAUCEI; STOLTZ, 2018).

## Bibliometric overview: definitions for the term double exceptionality

The definition of a term, in technical-scientific language, is a relevant work, mainly due to the fact that it must be understood as a statement that, in addition to defining a notion, process or object, also constitutes a central element that has as function to convey specialized, technical or scientific knowledge of an area of knowledge (FINATTO, 2002).

Baldwin et al. (2015), when reporting, from a historical point of view, investigations that confirmed the coexistence of high abilities or giftedness with disabilities, expose that

researchers have not yet managed to stipulate a common definition for the term twice exceptionality. The authors emphasize that advances in research, regarding these special populations in the area of education of people with high abilities or giftedness, depends on a precise, operational, research-based definition, agreed between scholars and other professionals who work with twice exceptional students.

[...] have exceptional ability in one area or more than one and, at the same time, a disability or disorder or syndrome. This exceptional ability may stand out hiding the impairment/disorder/disturb/syndrome, or the impairment/disorder/disorder/syndrome may be overwhelming, masking the potential. Each exceptionality can mask the other so that neither is recognized. (BALDWIN *et al.*, 2015, p. 212-213, our translation).

Based on this definition, Baldwin *et al.* (2015) and Ronksley-Pavia (2015) state that one of the main problems to be faced, regarding the understanding of the definition of twice exceptionality, is the lack of a consensus, on the one hand, on the term disability and, on the other, on the term high abilities or giftedness. Thus, it is noted that an essential issue for the definition of the term twice exceptionality is to clearly establish the notions of disability and high abilities or giftedness among scholars on this subject in Brazil.

It is thus inferred that broader and more multifaceted conceptions of giftedness (GAGNÉ, 2015; RENZULLI, 2018) and intelligence (GARDNER, 1994) clearly underlie the coexistence of high abilities or giftedness with any disability, including intellectual disability (RONKSLEY-PAVIA, 2015). While limited and restricted conceptions of intelligence and giftedness can lead to the non-recognition of the twice exceptionality, especially if there is no flexibility in the interpretation of standardized test results (GILMAN; PETERS, 2018).

Regarding the issue of disability in the Brazilian educational scenario, there is an incompatibility between the legislative documents of Special Education and the numerous international investigations that are also based on educational legislation in their countries. The incongruity, in fact, is established, because the public to be covered by specialized educational services in Brazil is quite different and reduced when compared to the public of students from other countries.

Differently from the Brazilian context, it is noticed that international researchers, when using the term disability, refer to both physical, intellectual, auditory, visual impairments and disorders (dyslexia, ADHD, among others), syndromes or disorders (BALDWIN *et al.*, 2015; FOLEY-NICPON *et al.*, 2011; REIS; BAUM; BURKE, 2014; RONKSLEY-PAVIA, 2015). From the examination of the definitions of the term twice

exceptionality in Brazilian scientific production, it was found that they can be classified into three categories:

- (a) *Typological definition:* in this category, those definitions were selected in which the authors referred to the type of twice exceptionality and not to a definition itself, as shown in Table 2, with the definitions (D1, D2, D5, D11, D12, D13, D16, D20, D22, D23, D24, D25);
- (b) Definition without clear specification of conditions: in this category, were listed the definitions that present either generic notions (incompatible conditions) or words whose meaning obscures the definition of the term twice exceptionality (what to understand by educational incapacity or educational, physical and sensory disorder? Or another condition that limits them?). This way of exposing the definition for the term can cause problems for education and health professionals, since there is no clear reference to what type of condition the authors are referring to, as noted in the D6, D7, D8, D9, D10, D14, D17, D21 and D26 of Table 2.
- (c) *Definition based on international studies:* this category considered the scientific productions that follow the definitions of international investigations, which can be seen in Table 2, in definitions D15 and D18.

**Table 2** – Definitions of the term twice exceptionality in scientific production

	Authors (year)	Definitions
1	Rangni and Costa (2014a)	People who have simultaneously high abilities/giftedness and disability.
2	Rangni and Costa (2014b, p. 7)	Dual special educational needs due to the presence of high abilities/giftedness and hearing loss.
3	Fernandes (2014)	The author did not use a specific term nor provided a definition.
4	Silveira (2014)	The author did not use a specific term nor provided a definition.
5	Taucei (2015, p. 20)	It refers to some people who have above average skills in one or more areas of knowledge, whether in academic, intellectual, motor, social, artistic, and, at the same time, have a specific learning disorder.
6	Rocha (2015, p. 45)	Differentiated development processes incompatible with the characteristics of high abilities, expressed by the coexistence of the gifted phenomenon and another emotional or behavioral condition that interferes with the performance and performance of the gifted individual (OUROFINO, 2005, <i>apud</i> ROCHA, 2015, p. 45)
7	Alves and Nakano (2015a, p. 88)	It involves the idea that cognitive abilities may present developments that are often considered opposites, that is, people who demonstrate superior abilities in one or more areas may, at the same time, also present disabilities or conditions incompatible with these characteristics.
8	Alves and Nakano (2015b, p. 281)	Presence of high performance, talent, ability or potential (e.g. in creativity and intelligence) occurring in conjunction with a medical or psychiatric disorder or educational disability.

Alves and Nakano (2015c, p. 347)	It can be defined as the presence of high performance, talent, ability or potential occurring in conjunction with a psychiatric, educational, sensory and physical disorder. It also involves the idea that people who demonstrate superior
	capabilities in one or more areas could present at the same time deficiencies or conditions incompatible with these characteristics.
Vilarinho- Rezende, Fleith and Alencar (2016, p. 63)	Individuals with high abilities/giftedness can sometimes also present some disorder of a psychological, behavioral, neurological character.
Rangni and Costa (2016, p. 1981)	High abilities/giftedness and disability, that is, visual impairment, a condition addressed in this article.
Lopes and Gil (2016, p. 203)	Due to the association of visual impairment with high abilities/giftedness.
Martins (2016, p.1)	High skills or giftedness accompanied by Asperger syndrome.
Pinho (2016, p. 9-10)	Highly skilled people, but who at the same time have some disability and/or other condition that limit and compromise their learning "high intelligence and potential and possible behavioral and emotional disorders" that would generate difficulties.
Massuda (2016, p. 17)	The term has been used by international and national researchers, generally, to refer to students with giftedness or talent who have a concomitant disability, disturb or disorder, including physical or sensory disability, Asperger's syndrome, emotional disorders and/or conduct disorder, learning disorders or disorders and ADD/H.
Carvalho and Rangni (2016, p. 4)	Two specificities, high abilities/giftedness and visual impairment, can coexist as a twice exceptionality.
Kuhn, Lima and Araujo (2016, p. 5)	The gifted individual may reveal a set of special educational needs associated with various psychological and behavioral disorders (WEBB; LATIMER, 1993, apud KUHN; LIMA; ARAUJO, 2016, p.5).
Massuda and Rangni	The terminology has been used by international researchers to refer generally to people with high abilities or giftedness who have a concomitant disability, disorder, syndrome or disturb.
Ogando (2018)	The author did not use a specific term nor provided a definition.
Souto (2019, p. 33)	The gifted may have behavioral, emotional or learning difficulties (e.g., dyslexia, central auditory processing disorder - CAPD, attention deficit hyperactivity disorder - ADHD or Asperger's disorder) simultaneously with superior abilities, with the overlap of these characteristics, apparently antagonistic, called twice exceptionality.
Taverna (2019, p. 45)	It covers the complex reality of some people with above average skills in one or more areas of knowledge, which may be in the academic, intellectual, motor, social, artistic areas, among others, and who may have a specific disorder and/or specific learning difficulties (TAUCEI, 2015 <i>apud</i> TAVERNA, 2019, p.45).
Ogeda (2019, p. 78)	Association of the two ADHD conditions and high abilities or giftedness, here called twice exceptionality.
Silva and Pieczarka (2020, p.242)	Term used to describe gifted children with learning difficulties, autism spectrum disorder and or attention deficit hyperactivity disorder (BUDDING; CHIDEKEL, 2012, <i>apud</i> SILVA; PIECZARKA, 2020, p. 242).
Uberti and Rosa (2020, p. 3)	This term has been used in the literature to describe the conditions of subjects with High Abilities/Giftness concomitantly with some neurodevelopmental disorder, such as Autistic Spectrum Disorder (ASD), attention deficit hyperactivity disorder (ADHD), Dyslexia, among others.
Ogeda and Chacon (2020, p. 101)	In the last decade, there has been a timid increase in the number of empirical research on the relationship between giftedness and ADHD. Many of these investigations suggest that, in addition to misdiagnosis, the association of the two phenomena needs to be considered: the so-called twice exceptionality.
Soares and Oliveira (2020, p. 557)	Twice exceptionality can be characterized as the high capacity of an individual in a certain area associated with a disorder that can be encompassed in various spectrums, such as: physical, psychiatric, sensory and educational. It also
	Vilarinho-Rezende, Fleith and Alencar (2016, p. 63) Rangni and Costa (2016, p. 1981) Lopes and Gil (2016, p. 203) Martins (2016, p. 1) Pinho (2016, p. 9-10)  Massuda (2016, p. 17)  Carvalho and Rangni (2016, p. 4) Kuhn, Lima and Araujo (2016, p. 5) Massuda and Rangni (2018, s/p) Ogando (2018)  Souto (2019, p. 33)  Taverna (2019, p. 45)  Ogeda (2019, p. 78) Silva and Pieczarka (2020, p.242) Uberti and Rosa (2020, p. 242) Uberti and Rosa (2020, p. 3)

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encompasses the idea of a subject being gifted in a given subject while presenting deficiencies that should not make this possible.

Source: Devised by the authors

In relation to categories a and b, the definitions proposed by the authors do not cover the phenomenon in its entirety. This can compromise the continuity of research on the subject and also disseminate an incomplete notion of twice exceptionality in the area itself, associating this condition only with the type of twice exceptionality, as if it were the phenomenon itself, as warned by Ronksley-Pavia (2015).

Regarding category c, there is a definition that contemplates the numerous possibilities of occurrence of twice exceptionality and is based on various research that have been developed in the international scenario. However, the adoption of this definition is based on the translation of the word *disability* as set out in international educational legislation, whose target audience by Special Education is much broader than that established in our country (BRASIL, 2011).

Thus, to carry out research on this topic, in education of people with high abilities or giftedness, one must not only recognize the numerous conditions of disability, disturb/disorder or syndrome that can coexist with high abilities or giftedness, as well as understanding that students with twice exceptionality have special educational needs. These students may find it difficult to demonstrate their high potential, which is often masked by low academic performance. (OUROFINO; FLEITH, 2011).

It is also necessary to emphasize that, in 15.8% (n=3) of the productions, the researchers, by not using specific terminology, did not propose a definition either, even though this is the object of study in scientific investigations. It is assumed, therefore, that, in fact, studies on this topic in Brazil are still at an early stage (TAUCEI; STOLTZ, 2018).

## Types of twice exceptionality studied in scientific productions

Ronksley-Pavia (2015) states that it is necessary to clearly determine what is meant by disability and by high abilities or giftedness, aiming at a clear definition for the twice exceptionality. Based on this assumption, the author specifies under which conditions the meaning of *disability* should be considered, which, in interaction with the characteristic features of high abilities or giftedness, will compose the twice exceptionality. The word *disability*, for this author, refers, in the translation into Portuguese, to four specificities: a) disorders; b) syndromes; c) disturbs and d) physical, sensory and cognitive impairments.

From this framework of conditions, together with the socio-environmental factors, various combinations are formed that result in types of twice exceptionality. In Figure 4, it can be seen that some types of twice exceptionality have been the object of study by Brazilian researchers. In the twenty-six (N=26) productions analyzed, six (N=6) types of twice exceptionality were found.

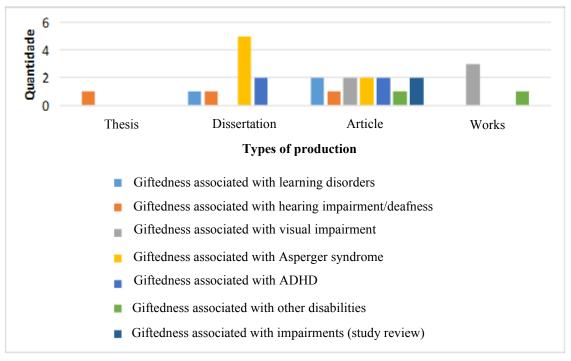


Figure 4 – Types of twice exceptionality studied in scientific productions

Source: Devised by the authors

The high abilities or giftedness associated with Asperger Syndrome (N=7) and visual impairment (N=5) constituted, over the period studied, the most studied types of twice exceptionality in Brazil, representing, respectively, 26.9% and 19.2% of scientific production. Then, the study of high abilities or giftedness associated with Attention Deficit/Hyperactivity Disorder (ADHD) (N=4) and with hearing loss/deafness (N=3), totaling, respectively, 15.4% and 11.5% of the productions carried out between 2014 and 2020. The least studied types among Brazilian researchers are the coexistence of high abilities or giftedness with Learning Disorders (N=2), with 7.7%. Studies related to other deficiencies were also observed (N=2), totaling 7.7%, and two (N=2) literature review studies, corresponding to 7.7% of the total scientific production in the period.

In the international scenario, in contrast to the Brazilian panorama, the most investigated types of twice exceptionality were the coexistence of high abilities or giftedness

with learning disorders, corresponding to twenty-one empirical studies carried out (N=21), and with ADHD, seventeen investigations (N=17) (FOLEY-NICPON *et al.*, 2011). This data may be related to the fact that, in US legislation, learning disabilities and ADHD are included as conditions to be met by Special Education in the US.

#### **Final considerations**

In the Brazilian context, the theme of twice exceptionality, in fact, is emerging, due to the few and sparse productions in the period from 2014 to 2020. This characterization can also be corroborated by the terminological fluctuation and by the little use of the term twice exceptionality in the Keywords section of scientific productions.

Based on the results, it is necessary to deepen the understanding of the definition of twice exceptionality, since, in many studies, conceptual problems, inaccuracies and/or semantic ambiguities were noted. Thus, it is suggested that it is necessary, among Brazilian researchers, to use the term twice exceptionality and a definition compatible with international studies, aiming at the advancement of research in Brazil and the proposition of specific public policies for this group of students.

It is also noteworthy that only electronic databases were consulted, with temporal coverage limited to works published in the last seven years (2014-2020) and consultation of the Annals of only one congress (CBEE), thus being a limitation of this study. Despite this, it is understood that the sample surveyed provided an overview of scientific production regarding studies on twice exceptionality in the Brazilian scenario.

#### REFERENCES

ALVES, R. J. R.; NAKANO, T. C. A dupla-excepcionalidade: relações entre altas habilidades/superdotação com a síndrome de Asperger, transtorno de déficit de atenção e hiperatividade e transtornos de aprendizagem. **Rev. psicopedag.**, São Paulo (SP), v. 32, n. 99, p. 346-360, 2015a. Available:

http://pepsic.bvsalud.org/scielo.php?script=sci\_arttext&pid=S0103-84862015000300008&lng=pt&nrm=iso. Access: 18 June 2018.

ALVES, R. J. R.; NAKANO, T. C. Criatividade em indivíduos com transtornos e dificuldades de aprendizagem: revisão de pesquisas. **Psicol. Esc. Educ.**, Maringá (PR), v. 19, n. 1, p. 87-96, 2015b. Available: http://www.scielo.br/scielo.php?script=sci\_arttext&pid=S1413-85572015000100087&lng=en&nrm=iso. Access: 15 June 2018.

ALVES, R. J. R.; NAKANO, T. C. Desempenho criativo e suas relações com diferentes medidas de inteligência em crianças com dislexia do desenvolvimento: um estudo

exploratório. **Psicol. Reflex. Crit.**, Porto Alegre (RS), v. 28, n. 2, p. 280-291, 2015c. Available: http://www.scielo.br/scielo.php?script=sci\_arttext&pid=S0102-79722015000200280&lng=en&nrm=iso. Access: 15 June 2018.

BALDWIN, L. *et al.* Twice-exceptional learners: the journey toward a shared vision. **Gifted Child Today**, v. 38, n. 4, p. 206-214, 2015. Available: http://sagepub.com/journalsPermissions.nav. Access: 15 Apr. 2018.

BAUM, S.; SCHADER, R.; OWEN, S. **To be gifted and learning disabled**: strenght-based strategies for helping twice- exceptional students with LD, ADHD, ASD, and more. Waco, Texas: Prufrock Press, 2017.

BRASIL. **Decreto 7.611/2011**. Dispõe sobre a educação especial, o atendimento educacional especializado e dá outras providências. Brasília, DF: MEC, 2011. Available: http://www.prograd.ufu.br/sites/prograd.ufu.br/files/media/documento/8.6\_- \_\_decreto\_ndeg\_7.611-11\_- \_acessib.pdf. Access: 01 Aug. 2018.

BRASIL. **Decreto n. 10.502 de 30 de setembro de 2020**. Institui a Política Nacional de Educação Especial: Equitativa, Inclusiva e com Aprendizado ao Longo da Vida. Brasília, DF: MEC, 2020. Available: https://www.planalto.gov.br/ccivil\_03/\_ato2019-2022/2020/decreto/d10502.htm. Access: 20 Apr. 2021.

BRASIL. Diretrizes Nacionais para a Educação Especial na Educação Básica/Secretaria de Educação Especial. Brasília, DF: MEC, 2001. Available: http://portal.mec.gov.br/seesp/arquivos/pdf/diretrizes.pdf Access: 24 May 2018.

BRASIL. **Lei n. 9.394 de 20 de dezembro de 1996.** Estabelece as diretrizes e bases da Educação nacional. Brasília, DF: MEC, 1996. Available: https://www2.senado.leg.br/bdsf/bitstream/handle/id/70320/65.pdf. Access: 18 May 2018.

BRASIL. **Política nacional de Educação Especial na perspectiva da educação inclusiva**. Brasília, DF: MEC/SEESP, 2008. Available: http://portal.mec.gov.br/arquivos/pdf/politicaeducespecial.pdf. Access: 05 May 2018.

CARVALHO, R. N.; RANGNI, R.A. Altas habilidades/superdotação e deficiência visual: uma revisão literária acerca da dupla excepcionalidade. *In:* CONGRESSO BRASILEIRO DE EDUCAÇÃO ESPECIAL, 7., 2016, São Carlos. **Resumos** [...]. Campinas, SP: GALOÁ, 2018. Available: https://proceedings.science/cbee7/papers/altas-habilidades/superdotacao-edeficiencia-visual%3A-uma-revisao-literaria-acerca-da-dupla-excepcionalidade. Access: 05 June 2018.

FERNANDES, T. L. G. **Capacidades silentes**: avaliação educacional diagnóstica de altas habilidades em alunos com surdez. 2014. Tese (Doutorado) – Universidade Federal do Ceará, Fortaleza, CE, 2014. Available:

http://www.repositorio.ufc.br/bitstream/riufc/9015/1/2014\_tese\_tlgfernandes.pdf. Access: 15 June 2018.

FINATTO, M. J. B. O papel da definição de termos técnico-científicos. **Revista da ABRALIN**, v. 1, n. 1, p. 73-97, 2002. Available:

https://revistas.ufpr.br/abralin/article/download/52704/32405. Access: 19 May 2019.

FLEITH, D. S.; ALENCAR, E. M. L. S. **Desenvolvimento de talentos e altas habilidades**: orientação a pais e professores. Porto Alegre, RS: Artmed, 2007.

FOLEY-NICPON, M. F. *et al.* Empirical Investigation of twice-exceptionality: where have we been and where are we going? **Gifted Child Quarterly**, v. 55, n. 1, p. 3-17, 2011. Available: https://journals.sagepub.com/doi/10.1177/0016986210382575. Access: 15 Apr. 2018.

GAGNÉ, F. Academic talent development programs: a best practices model. **Asia Pacific Educ. Rev.**, v. 16, p. 281-295, 2015. Available: https://link.springer.com/article/10.1007/s12564-015-9366-9. Access: 19 May 2019.

GARDNER, H. **Estruturas da mente**: a teoria das inteligências múltiplas. Porto Alegre, RS: Artes Médicas, 1994.

GILMAN, B. J.; PETERS, D. Finding and serving twice exceptional students: using triaged comprehensive assessment and protections of the law. *In:* KAUFMAN, S. B. (Ed.). **Twice exceptional**: supporting and educating bright and creative students with learning difficulties. Canadá: Oxford University Press, 2018. p. 19-47.

HAYASHI, C. R. M. Apontamentos sobre a coleta de dados em estudos bibliométricos e cientométricos. **Filosofia e Educação**, Campinas (SP), v. 5, n. 2, p. 89-102, 2013. Available: https://periodicos.sbu.unicamp.br/ojs/index.php/rfe/article/view/8635396. Access: 28 July 2018.

KAUFMAN, S. B. **Twice exceptional**: supporting and educating bright and creative students with learning difficulties. Canadá: Oxford University Press, 2018.

KUHN, C.; LIMA, D. M. P.; ARAÚJO, Y. A. B. C. Altas habilidades/superdotação e baixavisão: uma proposta de enriquecimento a partir do fanzine. *In*: CONGRESSO BRASILEIRO DE EDUCAÇÃO ESPECIAL, 7., 2016, São Carlos. **Resumos** [...]. Campinas, SP: GALOÁ, 2018. Available: https://proceedings.science/cbee7/trabalhos/altas-habilidadessuperdotacao-e-baixa-visao-uma-proposta-de-enriquecimento-a-partir-do-fanzine. Access: 05 Aug. 2018.

LOPES, B. J. S.; GIL, M. S. C. A. Altas Habilidades/Superdotação Percebidas pelas Mães nos Seus Filhos com Deficiência Visual. **Rev. Bras. Ed. Esp.**, Marília (SP), v. 22, n. 2, p. 203-220, 2016. Available: http://www.scielo.br/pdf/rbee/v22n2/1413-6538-rbee-22-02-0203.pdf. Access: 15 June 2018.

MARTINS, L. O. G. **Dupla excepcionalidade em foco**: divulgação científica e formação continuada. 2016. Dissertação (Mestrado em Diversidade e Inclusão) – Universidade Federal Fluminense, Niterói, RJ, 2016. Available:

http://ppga.sites.uff.br/wpcontent/uploads/sites/186/2018/08/Disserta%C3%A7%C3%A3o-LucieiddeOliveiraGarciaMartins.pdf. Access 15 June 2018.

MASSUDA, M. B. Indicadores de dotação em educandos diagnosticados com transtorno de déficit de atenção/hiperatividade. 2016. Dissertação (Mestrado em Educação Especial) — Universidade Federal de São Carlos, São Carlos, SP, 2016. Available:

https://repositorio.ufscar.br/bitstream/handle/ufscar/7923/DissMBM.pdf?sequence=1&isAllo wed=y. Access: 15 June 2018.

MASSUDA, M. B.; RANGNI, R. A. Altas habilidades ou superdotação e dupla excepcionalidade: definições e reflexões. *In:* RANGNI, R. A.; MASSUDA, M. B.; COSTA, M. P. R. (Org.). **Altas habilidades/superdotação**: temas para pesquisa e discussão. São Carlos, SP: EdUFSCar, 2017. p. 89-125.

MASSUDA, M. B.; RANGNI, R. A. Uma breve história da dupla excepcionalidade: um estudo sobre Stephen Hawking. *In:* CONGRESSO BRASILEIRO DE EDUCAÇÃO ESPECIAL, 8., 2018, São Carlos. **Anais eletrônicos** [...]. Campinas, SP: GALOÁ, 2018. Available: https://proceedings.science/cbee/cbee-2018/papers/uma-breve-historia-da-dupla-excepcionalidade---um-estudo-sobre-stephen-hawking. Access: 18 May 2019.

OGANDO, M. G. C. Particularidades do desenvolvimento musical de um aluno identificado com sinais de talento entre estudantes cegos. *In*: CONGRESSO BRASILEIRO DE EDUCAÇÃO ESPECIAL, 8., 2018, São Carlos. **Anais eletrônicos** [...]. Campinas, SP: GALOÁ, 2018. Available: https://proceedings.science/cbee/cbee-2018/papers/particularidades-do-desenvolvimento-musical-de-um-aluno-identificado-com-sinais-de-talento-entre-estudantes-cegos. Access: 18 May 2019.

OGEDA, C. M. M. **Superdotação e transtorno de déficit de atenção/hiperatividade**: um estudo de indicadores e habilidades sociais. 2019. Dissertação (Mestrado em Educação) — Universidade Estadual Paulista, Marília, SP, 2019. Available: https://repositorio.unesp.br/handle/11449/191638. Access: 15 July 2020.

OGEDA, C. M. M.; CHACON, M. C. M. Dupla excepcionalidade superdotação e TDAH: uma proposta metodológica. **Revista Diálogos e Perspectiva em Educação Especial**, Marília (SP), v. 7, n. 1, p. 101-116, 2020. Available: hhttps://revistas.marilia.unesp.br/index.php/dialogoseperspectivas/article/view/9825. Access: 20 Mar. 2021.

OUROFINO, V. T. A. T.; FLEITH, D. S. A condição underachievement em superdotação: definição e características. **Psicol. teor. prat.**, São Paulo (SP), v. 13, n. 3, p. 206-222, dez. 2011. Available: http://pepsic.bvsalud.org/scielo.php?script=sci\_arttext&pid=S1516-36872011000300016&lng=pt&nrm=iso. Access: 28 May 2019.

PEDRO, K. *et al.* Panorama das produções acadêmicas em altas habilidades/ superdotação. **Revista Iberoamericana De Educación**, v. 72, n. 1, p. 9-30, 2016. Available: https://rieoei.org/RIE/article/view/28. Access: 18 Mar. 2020.

PINHO, A. C. **Dupla excepcionalidade**: lista base de características observáveis em estudantes com altas habilidades ou superdotação e síndrome de Asperger- ferramenta para uso na escola. 2016. Dissertação (Mestrado em Diversidade e Inclusão) — Universidade Federal Fluminense, Niterói, RJ, 2016. Available: http://ppgo.sites.uff.br/wp content/uploads/sites/186/2018/08/Disserta%C3%A7%C3%A3o-AdrianadeCastroPinho.pdf. Access: 15 June 2018.

- PRIOR, S. Transition and students with twice excepcionality. **Australasian Journal of Special Education**, v. 37, n. 1, p. 19-27, 2013. Available: https://sci-hub.se/https://doi.org/10.1017/jse.2013.3. Access: 25 July 2019.
- RANGNI, R. A.; COSTA, M. P. R. Altas habilidades ou superdotação e perda auditiva: duplicidade de necessidades educacionais especiais e políticas públicas. **Cadernos de Pesquisa**. v. 21, n. 1, 2014a. Available:

http://www.periodicoseletronicos.ufma.br/index.php/cadernosdepesquisa/issue/view/193. Access: 15 June 2018.

- RANGNI, R. A.; COSTA, M. P. R. Altas habilidades/superdotação e deficiência: reflexões sobre o duplo estigma. **Educ. Rev.**, Curitiba (PR), n. 53, p. 187-199, 2014b. Available: http://www.scielo.br/scielo.php?script=sci\_arttext&pid=S0104-40602014000300012&lng=en&nrm=iso. Access: 15 June 2018.
- RANGNI, R. A.; COSTA, A. B. Altas habilidades/superdotação e deficiência visual: duplicidade de necessidades educacionais especiais. **Revista Ibero-Americana de Estudos em Educação**, Araraquara, v. 11, n. 4, p. 1979-1993, 2016. e-ISSN: 1982-5587. Available: https://periodicos.fclar.unesp.br/iberoamericana/article/view/7387. Access: 29 May 2021.
- REIS, S. M.; BAUM, S. M.; BURKE, E. An operational definition of twice- exceptional learners: implications and applications. **Gifted Child Quarterly**, v. 58, n. 3, 2014, p. 217-230. Available: http://gcq.sagepub.com. Access: 14 Apr. 2018.
- RENZULLI, J. S. Reexaminando o papel da educação para superdotados e o desenvolvimento de talentos para o século XXI: uma abordagem teórica em quatro partes. *In*: VIRGOLIM, A. (Org.). **Altas habilidades/superdotação**: processos criativos, afetivos e desenvolvimento de potenciais. Curitiba, PR: Juruá, 2018. p. 19-42.
- ROCHA, A. L. C. **Altas Habilidades / superdotação e surdez**: identificação e reconhecimento da dupla condição. 2015. Dissertação (Mestrado em Educação) Universidade Católica de Brasília, Brasília, DF, 2015. Available: https://bdtd.ucb.br:8443/jspui/bitstream/123456789/808/1/Andreia%20de%20Lima%20Camp os%20Rocha.pdf. Access: 15 June 2018.
- RONKSLEY-PAVIA, M.A Model of twice-exceptionality: explaining and defining the apparent paradoxical combination of disability and giftedness in childhood. **Journal for the Education of the Gifted**, v. 38, n. 3, p. 318-340, 2015. Available: http://journals.sagepub.com.ez31.periodicos.capes.gov.br/doi/10.1177/0162353215592499. Access: 15 July 2018.
- SILVA, M. R.; HAYASHI, C. R. M.; HAYASHI, M. C. P. I. Análise bibliométrica e cientométrica: desafios para especialistas que atuam no campo. **InCID: Revista de Ciência da Informação e Documentação**, Ribeirão Preto (SP), v. 2, n. 1, p. 110-129, 2011. Available: http://www.revistas.usp.br/incid/article/view/42337. Access: 28 July 2018.
- SILVA, N. A.; PIECZARKA, T. Altas habilidades e transtorno do déficit de atenção com hiperatividade: uma pesquisa bibliográfica. **Revista Cógnito**, v. 2, n. 2, p. 240-262, 2020. Available: https://revista.fidelis.edu.br/index.php/cognito/article/view/35. Access: 10 Apr. 2021.

SILVEIRA, T. S. A aprendizagem de uma criança com altas habilidades/superdotação e Transtorno de Asperger. 2014. Dissertação (Mestrado em Educação) — Universidade Federal de Santa Maria, Santa Maria, RS, 2014. Available: https://repositorio.ufsm.br/bitstream/handle/1/7125/SILVEIRA%2c%20SHEILA%20TORM

A%20DA.pdf?sequence=1&isAllowed=y. Access: 15 June 2018.

SOARES, L. S.; OLIVEIRA, G. S. Síndrome de Asperger: manifestações clínicas e sua relação com a dupla-excepcionalidade. **Revista Interdisciplinar em Saúde**, v. 7, n. 1, p. 551-562, 2020. Available:

http://www.interdisciplinaremsaude.com.br/Volume\_28/Trabalho\_42\_2020.pdf. Access: 25 Mar. 2021.

SOUTO, W. K. S. C. Inclusão educacional de um aluno superdotado com transtorno de **Asperger no ensino fundamental**: um estudo de caso. 2019. Dissertação (Mestrado em Psicologia) – Universidade de Brasília, Brasília, DF, 2019. Available: https://repositorio.unb.br/handle/10482/35690?mode=full. Access: 17 Dec. 2020.

TAUCEI, J. R. **Dupla excepcionalidade e interação social**: impasses e possibilidades. 2015. Dissertação (Mestrado em Educação) – Universidade Federal do Paraná, Curitiba, PR, 2015. Available: https://acervodigital.ufpr.br/bitstream/handle/1884/38830/R%20-%20D%20-%20JOULILDA%20DOS%20REIS%20TAUCEI.pdf?sequence=2&isAllowed=y. Access: 15 June 2018.

TAUCEI, J. R.; STOLTZ, T. Dupla excepcionalidade, potencialidades e dificuldades: uma discussão a partir de estudos de caso. *In*: VIRGOLIM, A. (Org.). **Altas habilidades/superdotação**: processos criativos, afetivos e desenvolvimento de potenciais. Curitiba, PR: Juruá, 2018. p. 239-259.

TAVERNA, C. H. Raciocínio lógico-matemático em um aluno do ensino fundamental com Síndrome de Asperger: dupla Excepcionalidade? 2019. Dissertação (Mestrado em Educação Especial) — Universidade Federal de São Carlos, São Carlos, SP, 2019. Available: https://repositorio.ufscar.br/bitstream/handle/ufscar/11883. Access: 20 June 2020.

UBERTI, L. B.; ROSA, R. R. Dupla excepcionalidade no filme "O Som do Coração": uma reflexão sob a perspectiva neuropsicológica. **Research, Society and Development**, v. 9, n. 9, p. 1-18, 2020. Available: https://rsdjournal.org/index.php/rsd/article/view/7094. Access: 10 Apr. 2021.

VILARINHO-REZENDE, D.; FLEITH, D. S.; ALENCAR, E. M. S. L. Desafios no diagnóstico de dupla excepcionalidade: um estudo de caso. **Revista de Psicología**, Lima, v. 34, n. 1, p. 61-84, 2016. Available:

http://www.scielo.org.pe/scielo.php?script=sci\_arttext&pid=S0254-92472016000100004&lng=es&nrm=iso. Access: 15 June. 2018.

VIRGOLIM, A. M. R. Altas habilidades e desenvolvimento intelectual. *In:* FLEITH, D. S.; ALENCAR, E. M. L. S. **Desenvolvimento de talentos e altas habilidades**: orientação a pais e professores. Porto Alegre, RS: Artmed, 2007. p. 25-40.

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