


Education of people with autism spectrum disorders: state of knowledge in dissertations and theses in the Southern and Southeastern regions of Brazil (2008-2016)

Educação de pessoas com transtorno do espectro do autismo: estado do conhecimento em teses e dissertações nas regiões Sul e Sudeste do Brasil (2008-2016)

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Abstract

Current special education policies seek to ensure people with disabilities, global developmental delay and high skills/giftedness access, permanence, participation and learning in the regular school. Among students considered to be “target audience of special education” are those with the so-called “autism spectrum disorder”. This study aimed to analyze the state of knowledge about autism spectrum disorders, based on theses and dissertations produced in the southern and southeastern regions of Brazil from 2008 to 2016. The analysis showed autism is defined using different approaches, most of them being guided by explanations in the medical field, linked to a notion of psychological and social deficit and impairment. Studies guided by a critical perspective, which values the educational, social and historical conditions of the subject’s constitution were also observed. One concludes that, although knowledge about autism is still in the domain of medical areas, the emergence of investigations in the scope of school inclusion allows the construction of ways of thinking the schooling process that surpasses exclusively medical models of looking at the difference.

Keywords: Autism Spectrum Disorder; State of Knowledge; Inclusive Education.

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Resumo

As atuais políticas de educação especial buscam garantir o acesso, a permanência, a participação e a aprendizagem de pessoas com deficiência, transtornos globais do desenvolvimento e altas habilidades/superdotação na escola comum. Entre os estudantes considerados “público-alvo da educação especial”, encontram-se aqueles com o denominado “transtorno do espectro do autismo”. Este estudo objetivou analisar o estado do conhecimento sobre educação de pessoas com “transtorno do espectro autista”, a partir de teses e dissertações produzidas nas regiões Sul e Sudeste do Brasil entre os anos de 2008 e 2016. A análise mostrou que o autismo é definido sob abordagens distintas, sendo a maioria orientada pelas explicações da área da medicina e vinculada a uma noção de déficit e prejuízos psicológicos e sociais. Observaram-se, ainda, trabalhos orientados por uma perspectiva crítica, que valoriza as condições educacionais, sociais e históricas de constituição do sujeito. Concluiu-se que, embora o conhecimento sobre o autismo ainda seja de domínio das áreas médicas, a emergência de pesquisas no âmbito da inclusão escolar permite a construção de formas de pensar o processo de escolarização que superam modelos exclusivamente médicos de olhar a diferença. **Palavra-chave:** Transtorno do Espectro Autista; Estado do Conhecimento; Educação Inclusiva.

Introduction

Current special education policies seek to ensure people with disabilities, global developmental delay and high abilities/giftedness access, permanence, participation and learning in the regular school (Brasil, 2008, 2015). According to the Brazilian National Policy of Special Education from the perspective of Inclusive Education (PNEEPEI) (Brasil, 2008), students with Autism Spectrum Disorder (ASD), the focus of this study, are part of the target audience of special education (PAEE) and are included in the category of **global developmental delays**.

According to Guareschi, Alves, and Naujorks (2016), autism was incorporated into educational policies from 1994, with the National Policy of Special Education, being included in the category of **atypical conducts**, defined as

Behavior manifestations typical of patients with syndromes and psychological, neurological, or psychiatric conditions that cause developmental delays and impairments in social relationships, in a degree that requires specialized education service. (Brasil, 1994, p. 12, free translation)

The term **atypical conducts**, criticized due to its generality and the emphasis on conduct, hindering the identification of several conditions, was replaced, in the PNEEPEI, with the official terminology - **global developmental delays** -, according to the *Manual Diagnóstico e Estatístico de Transtornos Mentais*, 4th edition, revised text (DSM IV-TR). Organized by the American Psychiatric Association (APA), the DSM IV presents the following classifications for autism: Rett Syndrome, Childhood Autism, Asperger's Syndrome, Childhood Disintegrative Disorder, Global Developmental Delay with no other specification.

In 2013, APA published a new edition of the manual, the DSM V, bringing new modification to the nomenclatures of the five categories that integrate the “big umbrella” of “autism spectrum disorders.” (Sibemberg, 2015, p. 98). Already using the new nomenclature, in 2012, Brazil publishes Law No. 12.764, of December 27, 2012, which establishes

the National Policy for the Protection of the Rights of Persons with Autism Spectrum Disorder in Brazil (Brasil, 2012). In 2013, the Technical Note No. 24/2013/MEC/SECADI/DPEE (Brasil, 2013), which guides education systems in the implementation of Law 12.764/2012, reaffirms, for law enforcement purposes, the condition of **disability of persons with ASD, according to article 1 of the Convention on the Rights of Persons with Disabilities, promulgated in 2006 by the United Nations and ratified in 2008 by the Brazilian government**

Persons with disabilities are those who have long-term physical, mental, intellectual, or sensory impairments, which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others. (Brasil, 2011, p. 26, free translation)

Among the guidelines for education of people with ASD, the guarantee of schooling in regular schools and of the specialized education service (SES) is reinforced, affirming that the main guidelines are: the intersectoriality of actions and policies; the participation and monitoring of public policies aimed at people with ASD; the integral attention to their health needs; the incentive for their inclusion in the labor market; the public responsibility regarding public information on ASD; the incentive for training and qualification of specialized professionals; and the stimulus to scientific investigation (Brasil, 2012).

The changes in the denominations attributed to autism raise questions concerning the scientific discourses constructed on this object. The **names of the others**, as Skliar (2003) argues, are also ways of establishing boundaries - social, cultural, political, and individual - between ourselves and the others, thus defining who is **within** and who is **outside** the socially pre-established norms. When considering, based on Silva (2012), that **difference** and **identity** - as well as health and disease - are dependent categories that are socially and historically constituted through a system of individual meaning defined by power relations, the ways in which scientific investigation, especially those related to education, understands ASD is put into question.

In the context of special education, terminologies are continually changing and define, through their policies, the other's educability. From **exceptional** individuals in the 1960s and the 1970s, to **disabled**, **people with special needs**, **people with disabilities**, and **target audience of special education**, the names of the disability hide their individuals' subjectivity and limit the chances for these people to succeed in school and education (Goffman, 1980; Plaisance, 2015).

From the late 20th century on, disability as an object of investigation gains new epistemological spaces, such as the advent of disability studies and the proposal of a social model of disability (Barton, 1993; Barton; Oliver, 1997; Diniz; Barbosa; Santos, 2009; Woods, 2017). This field of studies focuses on the production of interdisciplinary investigations, based on the human and social sciences, aimed at understanding the disability in its complexity and breaking with the reductionism present in the biomedical model, focused on the individual's organic impossibility, deficit, and incapacity. The scientific debate on the social, cultural, political, and historical dimensions of disability strengthens the notion of the disabled person as a social actor, a subject with rights, deconstructing the historically imposed image of the "incapable" individual who is ignorant about his/her own reality (Barton, 1993).

From similar perspectives, critical autism studies emerge in the 2000s as a political and academic movement criticizing the ontological and nosological status of autism (O'Dell et al., 2016, Woods et al., 2018). The field of studies is initially organized into three axes: (1) attention to the ways in which power relations construct the knowledge of autism; (2) concern about creating new narratives about autism, which challenge the prevailing notions, whose focus is deficit and degradation; and (3) development of new analytical frameworks from inclusive and non-reductive methodological and theoretical approaches for the study of the nature and culture of autism (O'Dell et al., 2016). The critical approach to autism proposes a break with the dichotomies produced by discourses focused on deficit and prejudice and the construction of new knowledge that favors reciprocity and complementarity in the production of the notions of capacity/incapacity, ability/disability,

difficulty/potentiality. Thus, O'Dell et al. (2016) highlight the importance of knowing the different epistemic communities, their particularities and approaches to autism.

Considering that, the state of knowledge about ASD in Brazil is put into question. Fadda and Cury (2016) carried out a literature review on the etiological explanations about autism and present four distinct paradigms: the biological-genetic paradigm, which understands autism as a congenital neurological disease; the relational paradigm, in which the causes of autism result in failures in the mother-baby relationship; the environmental paradigm, which defines autism as a neurological injury caused by environmental agents in the prenatal, perinatal, or postnatal period; and the neurodiversity paradigm, which refutes the three previous paradigms, since it sees autism as a difference that characterizes the subject's uniqueness and not as a disease that needs to be medicated, controlled, diagnosed.

Teixeira et al. (2010), in a literature review on ASD produced between 2001 and 2009, show that, despite the growing number of dissertations and theses on the subject in Brazil, few scientific articles are produced. This shows the need of new investigations on the subject.

In studies on education, literature reviews carried out in different databases show the growth of educational investigation on the subject, especially since 2008, the year of publication of PNEEPEI (Neves et al., 2014). In sum, the results highlight the difficulties experienced by teachers and families in the context of school inclusion (Nunes; Azevedo; Schmidt, 2013), as well as the lack of studies on schooling and inclusive pedagogical practices (Nascimento; Cruz; Braun, 2017; Neves et al., 2014; Oliveira; Paula, 2012).

Although *state-of-the-art* research on educational inclusion of people with ASD is found in recent literature, few studies problematize the ways in which such notions are manifested in the scientific discourse. To contribute to the discussion in the field, this study aimed, firstly, to map the theses and dissertations on ASD produced in the South and Southeast of Brazil between 2008 and 2016 in a specific database, the digital database of theses

and dissertations of the Brazilian Institute of Information in Science and Technology (BDTD/IBICT). Secondly, it aimed to analyze the approaches to ASD and school inclusion in studies conducted in the education field.

Methodological procedures

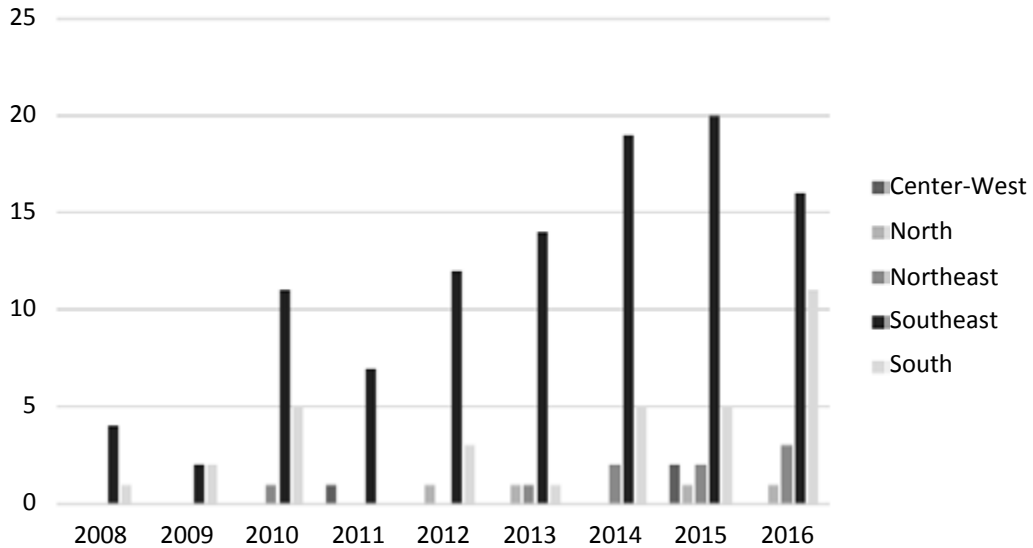
A *state-of-knowledge* study was conducted based on theses and dissertations produced between 2008 and 2016 in institutions in the South and Southeast regions of Brazil and available at the BDTD/IBICT.

According to Romanowski and Ens (2006), contrary to *state-of-the-art* studies, which seek to analyze the academic production of a given area in different sectors of knowledge, - scientific articles in periodicals, events, theses, and dissertations - the *state of knowledge* focuses on the production of only one sector. Both types of study, however, seek to analyze the production in the area of knowledge, justified by the possibility of offering "an overview of what has been produced in the field and a sorting that allows the interested parties to perceive the evolution of investigations in the area of knowledge, as well as their characteristics and focus, in addition to identifying the existing gaps" (Romanowski; Ens, 2006, p. 40).

The procedures were performed in two stages. The first consisted of the systematic collection of theses and dissertations on ASD in the BDTD/IBICT. In the second stage, a content analysis was carried out on the ways in which autism and inclusive education are addressed in investigations produced in graduate programs (GP) in the education field.

The initial search in the BDTD/IBICT was made using the *expanded search* tool, with period defined between 2008 and 2016 and with the descriptors *spectrum disorder*, *autism* and/or *autistic* selected for "all fields" without specifying the occurrence of terms in the title, subject, or abstract. We found 154 studies on autism in Brazil. The data were organized according to year, region, administrative nature of the institution of origin, graduate program, and study type. Figure 1 shows the distribution of theses and dissertations on ASD in Brazil per year, as found in the aforementioned search.

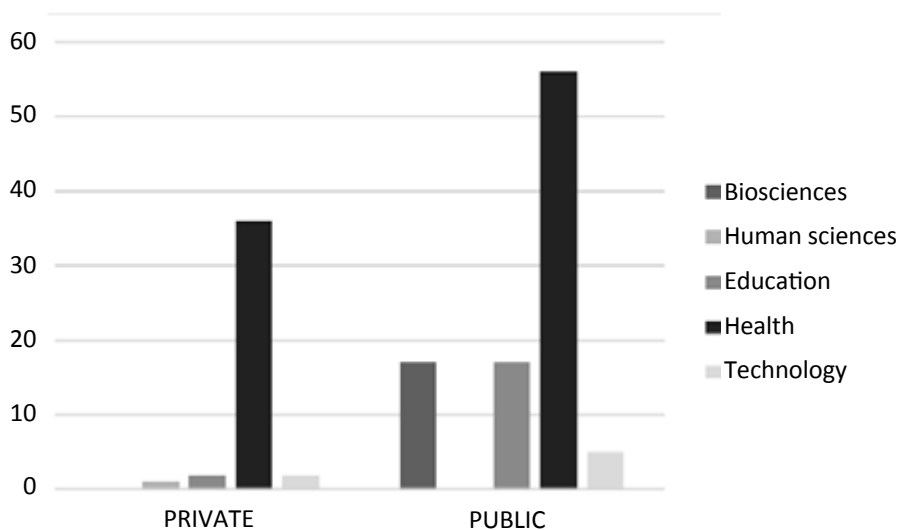
Figure 1 – Distribution of theses and dissertations on ASD according to year (2008-2016) and region in Brazil (BDTD, 2016)



Data in Figure 1 show an increasing production between 2008 (5 productions) and 2016 (31 productions). Of the 154 papers, 105 are from institutions in the Southeast, 33 from the South, 3 from the Midwest, 9 from the Northeast and 4 from the Northern Region of Brazil. Regarding the study type, out of the 42 PhD dissertations, 31 are from the Southeast region, 9 from the South region, and 2 from the Center-West region.

Considering the concentration of studies in the South and Southeast of Brazil, the corpus of analysis was limited to the 136 productions from the two regions. The data obtained were initially organized according to area of knowledge, based on the GP of origin, administrative nature of the institutions (public or private), obtaining the graph shown in Figure 2:

Figure 2 – Distribution of theses and dissertations according to the nature of the institution (public/private) and the area of knowledge in the South and Southeast regions of Brazil (2008-2016)



Regarding the nature of the higher education institutions (HEI), Figure 2 shows 95 out of 136 surveys are from public institutions, and 41 are from private institutions. This difference reflects the conditions of research funding policies in Brazil, which prioritize public institutions. Concerning the areas of knowledge, a high number of productions in the health field is observed, with 92 works; 36 of which are from private institutions and 56 of which are from public institutions. Out of this total, 17 are part of the GP in rehabilitation sciences, 29 of the GP in health sciences (collective health, child and adolescent health, medicine, phonoaudiology), 28 of the GP in psychology (clinical psychology, experimental psychology, school and educational psychology), and 18 of the GP in developmental delays.¹

The organization of the studies according to the area of knowledge also identified 17 studies in biosciences (genetics, biological sciences, biochemistry, sciences), 7 in technology (computer science, computer science in education) and 1 in human sciences (social work). The productions in the area of Biosciences belong to public institutions and are focused on genetics, suggesting the tendency to etiological explanations arising from the genetic model and the need for methodological procedures whose technology requires funding policies with which private institutions are not always benefited.

Of the total of 136 studies found, 19 were identified as belonging to the education field, considering their GPs of origin: education, special education, physical education, science education, teaching in basic education and mathematical education, as shown in Table 1.

To compare or complement the data related to educational research, a second search was carried out in the BDTD/IBIC, entering the term education with the same descriptors (autism, spectrum disorder, and autistic) used at the beginning of this study and the same period and region. With the new search, 38 studies were obtained, whose themes are related to the field of education according to their keywords.

Of these, the same 19 studies of the education field identified in Table 1 were found. The other 19 are divided into programs from different areas, 2 of which are from the field of education technology; and 17, from the health field (developmental delays, rehabilitation, psychology, and phonoaudiology).

Table 1 – Distribution of educational research by year and graduate program

Graduate programs	Overall total
Education: Mathematics	1
Educational management and practices	1
Education	9
Special education	5
Physical education	1
Science education	1
Teaching in basic education	1
Overall total	19

Considering the proposal to analyze the concepts of inclusive education and autism spectrum disorder in theses and dissertations in the education field, the second stage of this study was based on the 19 productions from GP in the same field.

For this purpose, the following procedures were performed:

1. identification and selection, through reading of abstracts and keywords of studies related to schooling and school inclusion;
2. reading and analysis of the studies found in full, focusing on their objectives, theoretical and methodological frameworks, and results;
3. and qualitative analysis of the concepts of inclusive education and autism spectrum disorder.

Through these procedures, one could identify eight theses and one dissertation related to school inclusion, produced in the GP in education, special education, physical education, informatics in education, science education, between 2008 and 2016, according to the searches made in the BDTD/IBICT. This was made to map trends and gaps in

¹ Productions on developmental delays were included as subcategory of health. They were produced in the GP from a private university in São Paulo.

the national production in the scope of the research theme, without, however, exhausting the subject.

Autism spectrum disorder in educational research in the South and Southeast regions of Brazil

Among the studies produced in GPs linked to the education field, this study identified 17 theses and 2 dissertations (Almeida, 2016; Alves, 2014; Aporta, 2015; Barbosa, 2016; Costa, 2015; Costa, D., 2016; Costa, L., 2016; Gallo, 2016; Guerra, 2015; Oliveira, 2016; Pereira, 2016; Ramos, 2014; Rinaldo, 2016; Rodrigues, 2015; Rosa, 2015; Santos, 2016; Silva, 2016; Souza, 2016; Takinaga, 2015).

The concentration of studies produced in the education field between 2014 and 2016 was observed. Studies produced before 2014 mapped in this study were performed in GP from the health field. Other literature reviews carried out using other databases, such as the database of thesis and dissertations of the Coordination for the Improvement of Higher Education Personnel (Capes), and descriptors found studies produced before this period in GP in the education field (Neves et al., 2014).

Regarding the subjects addressed in the 19 studies on education, five categories were identified: motor development, teaching and learning, family, and school inclusion. The teaching and learning category has five studies, whose respective topics are: equine-assisted therapy, motor development, science teaching, mathematics teaching, and teacher training (Alves, 2014; Aporta, 2015; Barbosa, 2016; Silva, 2016; Takinaga, 2015). The family as a research theme is highlighted in four studies that discuss siblings, parents, adulthood, and intervention with relatives of people with ASD (Oliveira, 2016; Rodrigues, 2015; Rosa, 2015; Souza, 2016). Of the 19 studies found, nine address the inclusion of the person with ASD in school (Almeida, 2016; Costa, 2015; Costa, D., 2016; Costa, L., 2016; Gallo, 2016; Pereira, 2016; Ramos, 2014; Rinaldo, 2016; Santos, 2016), from different perspectives, namely: pedagogical practices, school-family relations, schooling process, and teacher training.

Inclusion of the person with ASD: presentation of the investigations

Although the studies carried out in GP in education appears in this study only in 2014, two studies previously produced related to the subject of school inclusion of people with ASDs from GP in rehabilitation sciences and psychology were found. The themes relate, respectively, to friendship (Ricardo, 2011) and to the relationship between family and school (Pimentel, 2013), as follows.

Ricardo (2011) investigated, based on Piaget's approach, the conceptions of the friendship of children who study in an **inclusive class**, with one autistic student, and those who study in a **non-inclusive class**, that is, without PAEE students. He also sought to identify students' conceptions of differences among classmates. The methodology was guided by the **Piaget's clinical method** using cards with drawings and interviews. Children from the second grade of regular elementary school participated in the study. The results show students in the **inclusive class** perceive differences among classmates in a wider range of social, psychic, and physical characteristics than students in the **non-inclusive class**. In addition, the former showed to be more receptive to the establishment of friendship bonds with colleagues considered **different** than the latter, suggesting the presence of PAEE students in the classroom contributes to the development of new relationships based on the respect for differences.

In "Autismo e escola: perspectiva de pais e professores" (Autism and school: parents and teachers' perspective), Pimentel (2013) aimed to identify and describe the schooling of children and adolescents in the Western of the Metropolitan region of São Paulo. Through a questionnaire, the author conducted the survey with 56 caregivers of children and adolescents with ASD. The first stage of the investigation was the sociodemographic characterization of the caregivers and the children and, then, a school mapping with the children was carried out, containing information such as: school, school attendance, shift, number of teachers, among others. The results show that,

of children and adolescents with ASD, 54 attend school and two do not. Seven of these children study in special school and 46 in regular school. Most of the caregivers interviewed reported benefits when the child with ASD studies in regular school, among them: socialization, school support, and communicative advancement. In general, the family considers that the school positively impacts their children with ASD.

In the corpus defined for the study, Almeida (2016) analyzed the communication between family and school, through the analysis of three cases of mothers of students with ASD of early childhood education and initial school grades, in municipal schools of Santa Maria/RS. The instruments used were a sociodemographic questionnaire for families, a school characterization form, and interviews with parents and teachers. The results show family and school have different conceptions of **ideal types** of communication. Although the importance of the family in the children's schooling is considered, one observed the communication consists in academic aspects, not being enough for dialogue between home and school.

The schooling of students with ASD is topic of investigations from the perspective of inclusive education in three of the surveys searched. L. Costa (2016) used the case study to characterize ASD students' schooling in the elementary school classes of the municipal schools of Santa Maria/RS, from the perspective of educators who work with this public in the school. A multiple case study was carried out with 12 educators who work with ASD students. The results show the previous experience of educators of ASD students positively influences their pedagogical practice and the main difficulties in the work refer to the behavioral characteristics related to autism, which educators consider a **pedagogical barrier**.

Ramos (2014) also investigates the schooling of ASD people in an Italian immigration colony in Rio Grande do Sul aiming at identifying the context of this colony, analyzing how the management conducts the schooling of ASD children, and analyzing how teachers lead their pedagogical practices. The case study comprised the municipal departments of education, the principals, and the

teachers of the schools that have ASD students. The instruments used to examine the pedagogical actions cited in the interviews were documentary analysis, questionnaires, semi-structured interviews, and class observations. The results show the pedagogical practices are the same when ASD students start attending the classes and the student's participation in school activities is poorly encouraged. Also, in the context of **interaction with the teacher**, difficulties in communication are barriers in the schooling of ASD students.

Santos (2016), based on a Freirean approach, conducts an empirical study about the emancipatory perspective in the schooling of people with ASD in two public schools. The results of the study show, although the school community recognizes the schooling rights of ASD students, the emancipatory perspective is still on the margins of the process. The author identifies some actions that she considers typical of an emancipatory process. One highlights that the theoretical approach adopted helps in overcoming the understanding of **disability** as a **deficit** or **disorder**, which is typical of the medical model, and in understanding school inclusion not as a mere possibility of admission in the regular school, but of the individual's full development as a person under law.

Based on the bioecological perspective on human development, by Urie Bronfenbrenner, Rinaldo (2016) discusses the schooling of four-year-old children with ASD through interviews with school managers, teachers, and parents, and observation of the children's daily school life. The results point challenges to school inclusion related to the lack of human and material resources, the difficulties teachers face in the development of pedagogical practices that consider the students' specificities, the precariousness of the teacher training, and the need to change conceptions about ASD. Similar results were identified by Costa (2015) and Gallo (2016) in quali-quantitative and quantitative research, respectively, on pedagogical practices in children's education and teachers' work with ASD students. **State-of-the-art** research on schooling of ASD people also reveals the precariousness of teacher training (Nunes; Azevedo; Schmidt, 2013) and the lack

of studies addressing inclusive pedagogical practices (Nascimento; Cruz; Braun, 2017). Nunes, Azevedo, and Schmidt (2013) point out, based on a literature review, the importance of collaborative work, involving the school community for the transformation of teaching practices.

In his master's thesis, D. Costa (2016) addresses the implementation of the collaborative Individualized Education Program (IEP), through a case study in a primary education school. By comparing the moments before and after implementation together with the work team, the study showed collaboration between the participants, through information sharing, trust, and awareness about the student's development, and the establishment of articulated goals and plans in the pedagogical work.

Finally, focused on teacher training, the thesis by Pereira (2016), "Processos formativos do professor de alunos com transtorno do espectro autista: contribuições da teoria histórico-cultural" (Training processes of ASD students' teachers: contributions to the cultural-historical theory) sought to analyze the meaning of the teaching sequence proposed by the principal and coordinators of the school and the meanings the teacher attributes to the training provided through the out-of-school course on inclusive education. Finally, the author sought to analyze the possible relationships between the unique history and the meanings teachers attribute to training. To conclude the investigation, the author promoted: meetings with the principal and pedagogical coordinators; interview with teachers who taught ASD students in their classrooms; and documentary study. The results show the training processes contribute to the development of pedagogical practices, as long as they are placed in a broader context of articulation between "teaching organization, theoretical knowledge, and constitution of a collective study with approximations to a practical-theoretical movement." (Pereira, 2016, p. 156).

The inclusion of people with disabilities in educational spaces, as well as the overcoming of attitudinal and pedagogical barriers limiting this process, depends on the participation of the different social actors involved: educators, families,

ASD students, and others (Brasil, 2008, 2015). The presentation of the theses shows that, although the topic of school inclusion is present in most studies, the viewpoints on the reality investigated vary, as pointed out by other studies (Nascimento; Cruz; Braun, 2017; Nunes; Azevedo; Schmidt, 2013). Teachers, school managers, health professionals, family members, and students participate in the studies, showing a perspective based on the social model of disability to understand ASD students' schooling. However, attention is given to the dangers of transferring the emphasis of the student's deficit to the teacher, failing to analyze the complexity of the inclusion process.

In relation to methodological procedures, many qualitative studies have been observed in this sample, which is typical of educational research since the 1990s (Gatti, 2001, 2012). Adopting methods that favor the conceptions, perceptions, and social interactions of social actors and the social and historical contextualization of the issues investigated, such as qualitative study, contributes to the development of more comprehensive and interpretive perspectives on reality (Minayo, 2012). By looking at the subtleties emerging from the relationships between school staff, families, and students in school inclusion, one can create new explanations that, based on the social model of disability, go beyond the ontological theories (Canguilhem, 1995) that are typical of the biomedical model.

On the approaches about ASD and school inclusion

In the theses, the analysis of the ways in which ASD is presented shows the hegemony of biomedical discourse. Most of the studies have a specific section to explain autism. This section includes the discourse based on the etiological explanations from official manuals, especially from the Diagnostic and Statistical Manual of Mental Disorders (DSM), the specific explanations related to the research area (education, psychology, phonoaudiology, and psychopedagogy), and, in some cases, a discussion about the social aspects of autism regarding prejudice, discrimination, and other social barriers that impose limits to the full development of the ASD individual. From

the perspective of the biomedical model, autism is presented based on the prejudiced discourse against the individual's psychic condition.

When addressing the critical studies on autism in the United Kingdom, Woods (2017) reports that, despite the changes in regional policies, the biomedical model prevails in most autism studies, including in discussions on educational inclusion that emphasize the need for specialized support. The tendency to reinforce the **special** nature of the autistic person perpetuates ableism, affecting the ASD students' development due to the precarious implementation of inclusive policies. In other words, the discourse of inclusive education that adopts a biomedical perspective causes a marginal, precarious, excluding inclusion to emerge.

Appropriating different theoretical approaches provides new ways of seeing and understanding autism, which surpass the biomedical explanation. Based on the cultural-historical theory and on Paulo Freire's perspective, Pereira (2016) and Santos (2016) present other ways of seeing autism: in the case of Pereira (2016), explaining it as a historical and social construction; in the case of Santos (2016), from the perspective of human rights, which is similar to the critical approach from studies on autism and disability (Barton; Oliver, 1997; O'Dell et al., 2016; Woods, 2017).

This problematizes the differences created in social and school reality based on medical explanations that establish boundaries between those who are capable or incapable of being educated.

Although society-based explanations are still incipient in autism research in Brazil, they allow us to think of the differences as social, linguistic, and political constructions and to overcome the dichotomous logic that divides individuals into **normal** and **abnormal** based on biological or medical discourses. From this viewpoint, autism is no longer seen as a deficit, from the perspective of prejudice and disorder, and is recognized as a difference such as many others that characterize the human race. Considering that, the ideas of normality and abnormality, norm and deviation, difference and identity coproduce each other through their own signification systems:

In addition to being interdependent, identity and difference share an important aspect: they result from acts of linguistic creation. To say they result from acts of *creation* means to say they are not "elements" of nature, essences, things that are simply there, waiting to be revealed or discovered, respected or tolerated. Identity and difference have to be actively produced. They are not creatures of the natural world or of a transcendental world, but of the cultural and social world. We produce them, in the context of cultural and social relations. Identity and difference are social and cultural creations. (Silva, 2012, p. 86, free translation)

Inclusive education is a common theme among the theses addressing schooling, once they are placed in the political context that evokes the admission, permanence, learning, and participation of students targeted by special education in the regular school (Brasil, 2008). The perspective of inclusive education, however, is limited to special education and to the approach to a biomedical model of disability in some studies. In this case, as well as disability, school inclusion is seen from the viewpoint of the deficit, of the lack, of the damages alternately attributed to the difficulties faced by the students, by their teachers, or by their families. It tends to blame and reproduces the ontological theories of the disease, even if through different apparatuses. It is not a matter of disregarding the families' role, the teacher training, or even the student's condition. It is a matter of spotting the epistemological bases of the studies and the ways in which the other - the teacher, the family member, or the student - is perceived by the scientific discourse.

In the meantime, one highlights the studies by Pereira (2016), which propose teacher-centered investigations that contribute to the transformation of the school inclusion, by deviating from the biomedical logic of explanation about inclusive education and disability. The study by Ricardo (2011), in turn, brings the reflection on the notions of difference developed among students from a class that the author calls **inclusive**, based on the students' viewpoint. Thus, it contributes to the

problematization of attitudinal barriers, such as stigma (Goffman, 1980). In addition, in the studies by Almeida (2016), Pimentel (2013), Pereira (2016), and Ramos (2014), inclusion is also thought according to the subjectivities and meanings the coexistence with the other gives in the social, family, and school environments. In turn, Santos (2016) affirms that school inclusion assumes a political perspective, of human rights, in which emancipation is essential for the process.

Final remarks

Aiming at mapping ASD studies in Brazil, this study identified 154 academic productions, among theses and dissertations, published in the BDTD of the IBICT. Organized into dates, region of origin, and area of knowledge of the publications, identifying the growth of production from 2010, its concentration in the South and Southeast regions in public institutions, and the prevalence of health sciences in the production of knowledge of autism was possible.

According to the data obtained in the BDTD/IBICT, the investigations in the education field in the South and Southeast of Brazil are only produced from 2014 on, with 2 dissertations and 17 theses, most of them between 2015 and 2016. Nineteen productions found were categorized according to themes, based on their abstracts and keywords. Nine theses on school inclusion were selected for analysis of the explanations about autism and the perspectives adopted on inclusive education.

Although the theses in the education field appear only from 2014 on, in this study, productions on this topic are observed in GPs of the health field since 2010. However, one highlights a study conducted by Neves et al. (2014), in another database and with other descriptors, shows the occurrence of academic productions on the topic since the 1990s. The difference in the results points to the limitations of **state-of-the-art** or **state-of-knowledge** studies, which, by restricting the universe of the study, does not encompass the totality of the reality in question. However, it also favors the production of new

states of knowledge of the subject and different **narratives** about autism, as proposed by scholars of the critical perspective of autism (O'Dell et al., 2016; Woods, 2017).

Studies on school inclusion, guided by current policies, highlight the importance of learning, teacher training, school-family dialogue, and interdisciplinary work. These factors, however, appear using different approaches. Some studies are organized according to the biomedical explanations about ASD, associated with a notion of deficit and psychological, speech and hearing, and social damages. In the context of the ontological theories of ASD (Canguilhem, 1995), the disease is seen as an entity that, in the absence of social conditions, reduces the individual to the diagnosis. The conception of school inclusion tends, in turn, to be confined to the framework of specialized pedagogical knowledge, supposedly capable of normalizing, caring, or curing the student. Reproducing these models in educational research favors discourses that support and legitimize micro exclusions in a supposedly inclusive structure.

Although knowledge of autism is still a domain of the medical areas, this study shows the emergence of educational research on school inclusion can also contribute to the creation of ways of thinking about the schooling of ASD people alternative to the biomedical model. Studies from the critical perspective, which favors the educational, social, and historical conditions of the constitution of the subject, as opposed to an individual and pathological viewpoint on ASD, allow different perspectives on school inclusion and ASD to emerge. These studies understand disability not as an immutable matter or external entity that invades and imbalances students, their families, or the school daily life; but as a process that is created and transformed through social relations. Epistemologically rethought, inclusive education ceases to be only a teaching modality, limited to operational practices, to be problematized as a policy that invades boundaries, incorporates new subjects and knowledge, denaturalizes itself, and affects and transforms different realities.

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