Educação revista quadrimestral
ISSN 1981-2582
Porto Alegre, v. 41, n. 3, p. 401-410, set.-dez. 2018
http://dx.doi.org/10.15448/1981-2582.2018.3.31865

Dossier: VYGOTSKY'S DEFECTOLOGY

On *Fundamentos de defectología* and the development of Special Education teachers in Brazil

Fundamentos de defectología *e a formação de professores de Educação Especial no Brasil*

Fundamentos de defectología *y la formación de profesores de Educación Especial en Brasil*

FABIANE ADELA TONETTO COSTAS[1]
BENTO SELAU[2]

ABSTRACT

This text aimed at confirming whether the book *Fundamentos de defectología* (VYGOTSKI, 1997) constitutes the official documents that compose the National Policy on Special Education from the Perspective of Inclusive Education, issued by SECADI/MEC/Brazil. A search was conducted on its official didactic materials but this book was not found. A new search revealed that it was used as a reference to post-graduate final projects (three Master's thesis and a doctoral dissertation), to Research Groups n. 15 – Special Education – and n. 20 – Psychology of Education – at ANPEd (a research and three discussion texts) and to books and journals (two book chapters and nine articles published by journals), totaling nineteen studies. Two of them refer to the book in the area of Teacher Education, specifically in specialized educational assistance, suggesting that it has been poorly disseminated in continuing Teacher Education.

Keywords: Defectology; National Policy; Teacher Education; Special Education.

RESUMO

Este texto buscou confirmar se a obra *Fundamentos de defectología* (VYGOTSKI, 1997) constitui os materiais oficiais da SECADI/MEC/Brasil a partir da Política Nacional de Educação Especial na Perspectiva da Educação Inclusiva. Realizou-se pesquisa nos materiais didáticos oficiais, não sendo observada esta obra. Nova busca constatou que a obra foi utilizada como referência na pós-graduação (três dissertações e uma tese), nos Grupos de Trabalho n. 15 – Educação Especial – e n. 20 – Psicologia da Educação – da ANPEd (uma pesquisa, três textos de discussão e aprofundamento) e em livros e periódicos (dois capítulos de livro, nove artigos publicados em periódicos) total de dezenove trabalhos. Dois destes referenciam a obra na formação de professores para atuação em Educação Especial ou atendimento educacional especializado, sugerindo ser esta, ainda, pouco disseminada na formação docente continuada.

Palavras-chave: Defectologia; Política Nacional. Formação de Professores; Educação Especial.

RESUMEN

Este texto busca confirmar si la obra Fundamentos de defectología (VYGOTSKI, 1997) constituyó los materiales oficiales de SECADI/MEC/Brasil a partir de la Política Nacional de Educación Especial en la Perspectiva de la Educación Inclusiva. Se realizó investigación en los materiales didácticos oficiales, no siendo observada en esta obra. Nueva búsqueda constató que la obra fue utilizada como referencia en el post grado (tres tesinas y una tesis doctoral), en los Grupos de Trabajo n. 15 – Educación Especial – y n. 20 – Psicología de la Educación – de ANPEd (una investigación, tres textos de discusión y profundización) y en libros y periódicos (dos capítulos de libro, nueve artículos publicados en periódicos) total de diecinueve trabajos. Dos de estos referencian la obra en la formación de profesores para actuación en Educación Especial o atención educativa especializada, sugiriendo ser esta, todavía, poco diseminada en la formación docente continuada.

Palabras clave: Defectología; Política Nacional; Formación de professores; Educación Especial.

[1] Professora do Programa de Pós-Graduação em Educação da Universidade Federal de Santa Maria. Líder do Grupo de estudos e pesquisas em Psicologia da Educação e Educação Inclusiva – GEPEIN. Universidade Federal de Santa Maria. <http://orcid.org/0000-0003-3698-2782>. E-mail: <fabicostas@gmail.com>.
[2] Programa de Pós-Graduação em Educação. Universidade Federal do Pampa. <http://orcid.org/0000-0002-5792-0284>. E-mail: <bentoselau@gmail.com>.

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On *Fundamentos de defectología*

Fundamentos de defectología (VYGOTSKI, 1997) [*The Fundamentals of Defectology*] is a book that brings together texts produced by L. S. Vygotski, including those who were chosen[1] to compose the collection of his debates on Russian defectology. The reference of this text is the book that was translated into Spanish in 1997, though it is said that in-depth studies should be carried out by reading books in the original language they were written in. It is divided into three parts: *Problemas generales de la defectología; Cuestiones especiales de la defectología; Problemas colaterales de la defectología* [*General Problems of Defectology; Special Issues of Defectology; Collateral Problems of Defectology*]. It also includes *Materiales tomados de intervenciones, informes, etcétera* and *Apéndices* [*Documents taken from interventions, reports, etc*. and *Appendices*].

Vygotski gave great importance to Special Education, since he coordinated and carried out research in this field with children and adolescents who had physical, visual, mental, hearing and multiple disabilities at the Institute of Scientific Investigation of Defectology, which belongs to the Academy of Pedagogical Sciences in Russia. He was its scientific director in the last years of his life. His first works on defectology were published in 1924 (BEIN et al., 1997; COSTAS and TONINI, 2008). Vygotski's research on disabled persons' education and development is basic to understand defectology in the (former) Soviet Union (BARROCO, 2007).

The word "defectology" was first used in 1912 by the Russian psychiatrist Vsevolod Petrovich Kaschenko, from an educational perspective. Vygotski, however, scientifically grounded the area of defectology, based on theoretical studies and experiences (BARROCO, 2007), and re-signified the *status* of defectology, which became the vanguard derived from new ways of looking at the curriculum and methodology designed by schools for disabled people in past Russia. Kozulin and Gindis (2007) state that the term defectology simply means the study of defects in Russian. Defectology was adjusted to the mechanistic reality of the 1920's, which compared humans to machines. In this case, if the "mechanism" is not working, the defect must be found, classified and corrected (KOZULIN and GINDIS, 2007; KOZULIN, 1994).

Vygotski (1997, p. 17) criticized the philosophical and scientific conception of defectology which is aimed exclusively at quantitative determinants of disability that only delimited the degree of intellect insufficiency. The author argued that a pedagogue was interested in considering his/her student's "defect", precisely because s/he could achieve the same development as the non-disable done in a "*distinto modo, por un camino distinto, con otros medios*" ["*different way, different path, by other means*"] [emphasis added]. The use of the term "defect" by Vygotski meant that this "defect" would provoke compensation, rather than implying prejudice and discrimination, since deficiency could be either minimized or maximized, depending on social management.

Therefore, for Vigotski (2011), development can be understood as a winding path, encompassed by disruptions and crises,

> And the author's central thesis that indirect development paths become possible by culture when the direct path is blocked. This would have especial importance in the case of children with disabilities. Cultural development would thus be the main area in which it is possible to compensate the disability (p. 863).

These ideas, along with others, have raised Special Education to the level of a Marxian science, rescinding clinical and medical-biological characteristics of the deficiency, and highlighting its social, cultural, economic and affective aspects, which are the main constituents of any child's development and learning process, whether they have any disability or not. Vygotski's revolutionary Marxian thinking, included in the work *Fundamentos de defectología*, broadened pedagogical and psychological ideas at that time and enriched his academic production. He has clearly influenced studies in the area of Special Education, even today, although his texts have not necessarily become references to documents and policies that guide Education systems and Education programs for Special Education teachers in Brazil.

In addition, it is understood that this is one of the few, if not the only work of Cultural-Historical Psychology to contemplate the process of development of people with disabilities in a collectivity, based on historical and cultural constructs, justifying their election in the face of a national policy which indicates the educational inclusion of people with disabilities in common education systems.

Multilateral International Organizations and Agreements with peripheral countries: implications for Special Education

The World Conference on Education, whose motto was "Education for all", was held in Jomtien, Thailand, in 1990. This event was organized by several Multilateral

[1] It is believed that the members of the editorial board who edited the Russian version would have been more successful if, instead of selecting texts to compose a book of chosen works on Vygotski's defectology, they had included the entire author's works on the theme and had published a volume of Complete Works. It is more useful for researchers to work with the whole production of a classical author, rather than only with some of his/her texts.

International Organizations, such as the World Bank (IBRD), the United Nations Children's Fund (UNICEF), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and The United Nations Development Programme (UNDP), and expected to join global efforts to provide basic education for children, youth and adults, i.e., universalize Education. With regard to the inclusion of people with disabilities and/or Special Educational Needs, Article 3, item 5 is worded as follows: "Disabled people's basic learning needs require special attention. Measures must be taken to ensure equal access to education for people with disabilities of every kind as an integral part of the education system" (UNESCO, 1990, p. 4).

The universalist proposition that aimed at equity of access but restricted learning to basic aspects, both for students without any disability and those with some kind of special educational need, triggered much criticism (RABELO, SEGUNDO and JIMENES, 2009; BOTEGA, 2005, HYPOLITTO, 2002). These authors believe that universalization of education is conditioned on some compensation by the participating countries; it means that they agree with the implementation of educational policies that comply with recommendations issued by the World Bank. Moreover, the concept of *basic learning needs* would reduce the appropriation of universal knowledge to interests created by the immediacy of everyday classroom. Thus, universalization of access and "fulfillment" of basic learning needs advocated by the Jomtien Conference (UNESCO, 1990) should be understood neither as inclusion nor as part of an inclusive process, because they keep assigning the responsibility of the entire process – which also depends on others, such as the State, family and community – to basic education (CORREIA, 2013).

As an outcome the "World Conference on Special Educational Needs: Access and Quality", which was held in Salamanca, Spain, in 1994, published "The Salamanca Statement". Its presuppositions were the "principle of inclusion" and the need for a "school for all", which should take into consideration not only social, cultural, ethnic, gender, cognitive (with either high abilities/giftedness or disabilities) differences but also people at risk. As a result, the Statement coined the concepts of "special educational needs" and "inclusive school". Therefore, this conference and its resulting document evoke the need for actions that lead to an "inclusive school", since "[m]any children struggle in school and, consequently, have special educational needs at a certain point in their schooling. Schools have to find ways to successfully educate these children, as well as those with severe disabilities" (OREALC/UNESCO, 1994, p. 04).

Although there has lately been an increase in school enrollment of people with disabilities and/or special educational needs in certain countries since the Salamanca Statement, it is obvious that the school cannot account for this commitment alone. It must be considered that neither the "principle of inclusion" nor the ideology of an "inclusive school" has been able to cope with other socioeconomic and macro-structural demands that interfere in the routine of educational systems.

With regard to the target population of Special Education[2], international organizations have begun to disseminate the thesis that a disabled person should not be discriminated (ONU, 2006) and have urged educational systems to add specific channels to meet disabled students' learning needs (OREALC/UNESCO, 1994). Thus, "everyone" would need to be/study/live together in a school and transcend the institutionality of two teaching "systems": that of ordinary/regular schools and that of special education institutions (MICHELS and GARCIA, 2014). This fact results in changes in the structure of teaching systems and Education programs offered to their professionals.

Consequences of the internationalization of Brazilian public policies on Special Education and on teacher education programs

Concerning Brazilian public policies, several normative documents[3] were elaborated in the light of international conferences, which strongly influenced and guided the ordering process of educational systems, as well as educational processes of Special Education teachers that work in these systems. However, what is the influence of Vygotski's studies of the disabled, found in his Defectology, on the basis of these documents, especially with regard to teacher education? Before attempting to understand this question, the main normative items are briefly reviewed.

With regard to the development of Special Education teachers, Law on National Education Guidelines and Framework (LDBEN) n. 9.394/96 (BRASIL, 1996) stands out. Besides, the National Policy on Special Education from the Perspective of Inclusive Education (PNEEPEI, BRASIL, 2008b), Resolution n. 04/09 –

[2] Students with disabilities, global developmental disorders and high skills/giftedness (BRASIL, 2008b).

[3] LDBEN n. 9.394/96 (BRASIL, 1996) as amended by Law n. 12.796/13 (BRASIL, 2013); National Policy on Special Education from the Perspective of Inclusive Education (BRASIL, 2008b); Decree n. 6.571/08 on Specialized Educational Assistance (BRASIL, 2008a); Resolution n. 4/09 (BRASIL, 2009), Operational Guidelines for Educational Assistance Specialized in Basic Education; Decree n. 7.611/11 (BRASIL, 2011), revokes Decree Law n. 6.571/08 and provides on Special Education, specialized educational assistance and other measures; National Plan of Education (2014-2024); Law n. 13.146, from July 6 (BRASIL, 2015) establishing the Brazilian Law of Inclusion of People with Disabilities (Statute of the Person with Disabilities).

Operational Guidelines for Educational Assistance Specialized in Basic Education (BRASIL, 2009) – and Decree n. 7.611/11 (BRASIL, 2011) – *Special Education, specialized educational services and other measures* – should also be mentioned.

LDBEN n. 9394/96 (BRASIL, 1996) postulates that disabled people's education must *preferably* take place in the regular system of education and goes beyond initiatives that have been proposed so far. In fact, it regulates the education of subjects who have some disability, since, for the first time, it comprises Chapter V, which deals with Special Education and teacher education, highlighted in Article 58, subsection III that mentions "*teachers who have gotten adequate specialization in High School or college to provide specialized care, as well as teachers who are capable of* ***integrating these learners*** *into regular classes*;".

This law was revised in 2013. The resulting Law n. 12.796/13 named, for the first time, the target population of Special Education in Chapter V, Art. 58. It also underwent other changes: in 2015, with the inclusion of Art. 59, which deals with the registration of students with high skills and giftedness and, in 2017, with the reform of High School, which does not bring any change to Chapter V of Special Education.

In January 2008, PNEEPEI was promulgated in an attempt to "overcome" the integrationist character advocated by LDBEN n. 9.394/96. The new policy conceives [...] "**Teacher Education for specialized educational services and other education professionals for school inclusion**" (BRASIL, 2008b, p. 88, emphasis added).

With the intention of regulating the PNEEPEI, the National Council of Education – CNE – Resolution n. 04/09 (BRASIL, 2009) – O*perational Guidelines for Specialized Educational Assistance in Basic Education* is elaborated. These guidelines, in Article 12, suppose that "**regarding his/her role in SEA, the teacher must attend both an initial development program that enables him/her to practice teaching and specific development processes for Special Education**" (BRASIL, 2009, p. 03, emphasis added).

It is important to emphasize that neither PNEEPEI nor Resolution n. 04/09 has, in its essence, the compulsory character that, in fact and in law, would result in a legal order to redesign educational systems and their teachers' education. Thus, the Brazilian State promulgated Decree n. 7.611/11, which deals with *Special Education, specialized educational service and other measures*, in 2011. Article 5 states that it is the responsibility of the "Union to provide technical and financial support to public education systems, as well as to community, non-profit and philanthropic institutions" (BRASIL, 2011, p. 02) in order to assist the target population of Special Education in the light of SEA. In addition, technical and financial support of the Union was addressed to:

> III – **continuing teacher education**, including the development of bilingual education for deaf and hard-of-hearing students, as well as Braille teaching for blind and low vision students;
> IV – **development programs for managers, educators and other school professionals** from the perspective of inclusive education, mainly learning, participation and the shaping of interpersonal relationships (BRASIL, 2011, p. 02, emphasis added).

Thus, from 2008 onwards, PNEEPEI and its subsequent regulations have led to considerable increase in development processes which aim at teaching these students, both in public and private higher education[4], as well as in short specialization and development courses, which may be either traditional or online ones[5].

The period in which the number of teacher education courses increased, also had unequivocal increase in the number of enrollments of disabled people in ordinary/regular classes, as shown by the Special Education School Census (BRASIL, 2016). Therefore, it is also fundamental to expand the number of teachers to work with the target population in Special Education.

Fundamentos de defectología: a text that is missing in development programs for Special Education teachers

There has been congruence of state and international organizations regarding the need for improvement of public education since 1990. Special Education has appeared as a way of trying to balance differences between people with and without disabilities, since the latter have become susceptible to formal schooling and possible consumers. Special Education is complementary

[4] The Federal University of Santa Maria (UFSM) has had an undergraduate course in Special Education since 1984. In 2008, through the REUNI Program (BRASIL, 2007), the Special Education Undergraduate course was created at UFSM and a course on Special Education Degree at the Federal University of São Carlos (UFSCar) was also created. In 2009, private instituitions such as University of the Western Santa Catarina (UNOESC), the Unisul Foundation (UNISUL) and the University of Planalto Catarinense (UNIPLAC) opened their courses. In 2010, the University Center for the Development of the Upper Vale do Itajaí (UNIDAVI), the foundation of the University of Vale do Itajaí (UNIVALI), the Community University of the Region of Chapecó (UNOCHAPECÓ) and the University of the Region of Joinville (UNIVILLE) did the same. Finally, in 2011, the Regional University of Blumenau (FURB) created its coursen (BRASIL, 2018a).

[5] These courses range from 120h to 360h and graduate professionals, who already have some degree, to work in SEA in Multifunctional Resource Rooms. In practice, they will become professionals who will have the same status as a graduated special education teacher.

and supplementary to regular education and should be offered after regular hours, as Specialized Educational Assistance (SEA).

Consequently, development programs of Special Education teachers have begun to guide inclusive education, especially since 2008. In this scenario, Vygotski's *Fundamentos de defectología* was supposed to be one of the main beacons of teacher education processes for Special Education, due to its revolutionary and avant-garde bias. Learning and development were understood as processes that are established collectively, corroborating the idea that "everyone can learn together", widespread by government political management and by the Special Education Department (SEESP), which was incorporated by the Citizenship Literacy Diversity and Inclusion Special Department (SECADI), in the Ministry of Education (MEC).

However, **a single book** written by Vigotski (2008), *Pensamento e Linguagem* [*Thought and Language*], inspired and substantiated official didactic materials (SECADI/MEC[6]) that have advocated the development of Special Education teachers since 2003. No changes were carried out up to now.

Therefore, we can deduce that the book *Fundamentos de defectología* **has not been part** of texts and reference materials that advocate teacher education from the perspective of Inclusive Education published by the Ministry of Education, via SECADI. This book has been published, discussed and used in graduation courses in Brazil, in research and investigations, by Research Groups (RG) 15 – Special Education – and 20 – Educational Psychology[7] – of the National Association of Graduation in Education (ANPEd), in books and technical-scientific journals.

Some research conducted at graduate level

Since Vygotski's *Fundamentos de defectología* has neither been referenced nor appears to be part of the variety of materials listed by SECADI/MEC, which support different education courses for Special Education teachers, we set out to seek references of this book in the network (*Google, Google Academics, Google Scholar*) in order to map in which texts it was analyzed or taken as a guide for empirical research in Brazil – based on a bibliographical research (GIL, 2008).

The period between 2008 and 2018 was under investigation, since 2008 was the first year of PNEEPEI promulgation and 2018 was the year in which this policy was re-discussed (BRASIL, 2018b). The words "Vygotski" (spelled in different ways), "Defectology" and "Special Education" were used as descriptors. We excluded texts that only showed the book in its bibliographic references but considered those which used it as the focus of theoretical and/or theoretical-empirical analyses. We found four papers, three Master's thesis and a doctoral dissertation written by academic students in public universities, which will be shown in chronological order.

Research in Graduate Programs

The first one is a Master's thesis written by Silva (2011), who carried out a bibliographical research from 2009 to 2011. It comprises contributions of studies of Soviet defectology with a view to the intellectual deficiency for psychologists' formation and their work in Special Education and specialized educational services. Analyses show that the Vygotskian theory gives new meanings to psychologists' theoretical formation and performance, as well as new understanding of humans, whether disabled or not. He concluded that a psychologist's practice, in the way it has been carried out, cooperates to the preservation of a current social ideology, but, through the appropriation of Vygotski's theory, this way of acting may be interrupted and psychology involved in social transformation may be proposed.

Ferreira's Master's thesis (2012) results from a bibliographical and objective research which discusses the contribution of Educational Psychology to teacher education from the perspective of Inclusive Education, grounded in Vygotski's studies of Defectology. His analysis highlights the role of the teacher that must be aware of the collateral pathways of learning and development of people with disabilities and, mainly, the best way(s) of achieving them. He concludes that Vygotski's theory can offer elements to understand processes of development and learning of individuals and the articulation between these processes and the peculiarities that involve disabled people's education.

Silva Junior's doctoral dissertation (2013) aims to describe how a group of blind people defines its graduation in higher education and identifies factors associated with it, in the light of Vygotski's studies. It includes the exhibition of psychological-pedagogical propositions on blindness, originating from Vygotski's investigations in the context of his Defectology, which provoked there organization of the texts of Volume V of his *Selected Works*, in order to better understand his proposals on the subject. With the support of Vygotski's studies, data show

[6] DUK, C. *Educating in diversity*: teacher training material. 3. ed. Brasília: MEC/SEESP, 2006. GOMES, A.L.L. et al. *Continuing Online Teacher Training for Specialized Educational Care* – Mental Disability. Brasília: SEESP/SEED/MEC, 2007.

[7] The RG 15 is exclusively concerned with topics related to Special Education; the RG 20, by the accumulation on the Cultural-Historical Psychology and the writings of Vygotski.

that the main internal (subjective) factors to end higher education are awareness and will.

Fahd (2015), in his Master's thesis, aimed to analyze the contributions of *Fundamentos de defectología* to PNEEPEI's assessment (BRASIL, 2008b), regarding the effectiveness of SEA. Results showed that there is still a medico-pedagogic tendency that influences Special Education and the services offered to the target population in the town under investigation. There was a conception of integration-inclusion related to the implementation of SEA. These data allowed us to conclude that Vygotski's works have contributed to the analysis of PNEEPEI (BRASIL, 2008b) and that SEA in that town has not been implemented in agreement with the inclusion paradigm.

Research carried out by RG 15 – Special Education – and RG 20 – Psychology of Education – at ANPEd

As mentioned before, *Fundamentos de defectología* has an important role in research carried out by RG 15 – Special Education – and RG 20 – Psychology of Education – at ANPEd. Würfel (2015) provides data on discussions that have been developed in the area of Special Education, mainly in relation to contributions given by the Cultural-Historical Psychology to this field. His research aimed to analyze how Vygotski's theoretical reference was appropriated by researchers who participated in RG 15 – Special Education at ANPEd. Its specific objectives were to identify Vygotski's main works used in the research and map the themes that were prevalent in the studies presented in GT 15, from 1996 – the year of the enactment of LDBEN 9394/96, which has had direct impact on Special Education – to 2013, the last year of ANPEd annual meetings, which became biennial. According to Würfel (2015), 29 out of 46 studies, which were deeply based on Vygotski and the Cultural-Historical Psychology, had the text *Fundamentos de defectología* as their reference[8] whereas 23 of them were based on *Thought and Language* and 16 were related to *Mind in society*. Although *Fundamentos de defectología* is the most used text in research carried out by the RG, the author concludes that research conducted in the light of Cultural-Historical Psychology are still scarce in RG 15 – Special Education at ANPEd. It means, on average, three studies per year, a fact that shows little interest by researchers of this RG in this theoretical basis.

[8] Most of the papers have one to three pieces of work by the author in question (total of 34 papers, referring to 10 papers with one paper cited, 14 papers with two papers and 10 papers with three papers). Two papers do not have any references of Vygotski, because they use only authors that are based on the Cultural-Historical Psychology. We also found seven studies that use four pieces of work by Vygotski, 2 papers with five referenced pieces of work and one paper uses six author's work (WÜRFEL, 2015).

In the 37th ANPEd National Meeting, which was held in 2015, Carneiro's text (2015) brought the text as part of the theoretical framework that underpinned his research on intellectual disability as social production. Selau's research (2015a), which was also included in the 37th Meeting, discussed the notion of *sublation* by the blind, based on Vygotski's Defectology. The author analyzes the idea of sublation, popularly linked to a blind person who finishes higher education, based on these subjects' conceptions and in the light of Vygotski's Defectology. He concludes that the concept of dialectic overcoming of blindness proposed by Vygotski – based on Hegel – turns to the blind's elevation, through the mediation of cultural instruments: in the case of the participants in the investigation, interest in learning scientific concepts was the great ally for the dialectical overcoming of blindness. At the same meeting, but in RG 20, Cenci (2015) also refers to the text and carries out its analysis and of other writings by Vygotski; he highlights the potential of *Fundamentos de defectología* to understand Cultural-Historical Psychology. The basis is the central theoretical constructs in Vygotski's works, which allowed to distinguish 1) some already mature constructs: importance of the social in the formation of mind, mediation, internalization and superior psychological functions; 2) others that are already known but still lack maturity: relationships between thought and language and between learning and development; and 3) others that were germinating, but not explicit: zone of proximal development (ZPD), concept formation, everyday and scientific concepts. Their conclusions deepened the research due to the constant re-reading of these constructs, which gave them the deserved relevance on the inventory of Vygotski's production.

Some articles and book chapters

The book chapter written by Costas and Tonini (2008) had the purpose of succinctly explaining Vygotski's *Fundamentos de defectología* to understand that it approximates, with pertinence and depth, met the area of Special Education, a fact that certainly enriches the education process of professionals who work with students with disabilities and/or special educational needs, in different school contexts. The authors make comments about the text and highlight concepts, such as mediation, ZPD, primary disability and secondary disability. They also emphasize the relevance and extemporaneity of the book that continues to influence several researchers these days.

Lima, Araújo and Moraes (2010) examined *Fundamentos de defectología* and confirmed Vygotski's thesis that a "defect" is much more social than biological. They highlight that it is fundamental to study the child with "defect" in the light of laws of dialectical materialism

because it is the human being constituted by a historical-social nature.

Vigotski's article (2011) *Defectology and the Study of the Development and Education of Abnormal Children* was entirely translated by Denise Regina Sales, Marta Kohl de Oliveira and Priscila Nascimento Marques from the original Russian text [VIGOTSKI, L. S. Defektologuia i utchenie o razvitii i vospitanii nenormálnogo rebionka. In: Problemi defektologuii. Moscou: Prosveschenie, 1995. p. 451-458.]. The date it was written is unknown, but it may have happened between 1924 and 1931. For Vygotski, the developmental trajectory is conceived as something sinuous, crossed by "breaks" and shocks, and his central thesis is that indirect development paths are allowed by the culture when the direct path is obstructed. This fact would have particular relevance in the case of disabled children. Thus, cultural development would be the essential framework in which deficiency may be compensated (VIGOTSKI, 2011).

Netto and Leal's article (2013) aimed at rescuing the historical process of development of the Soviet Defectology, taking into account its contributions to Education, Psychology and Philosophy. The authors provide an overview of works of leading scholars of defectology in the former Union of Soviet Socialist Republics, notably those who have studied the education of people with multiple disabilities, mainly blindness and deafness. They stated that knowing the history of defectology, its authors and its related works can collaborate to the education of disabled people and professionals who interact with them. As a result, there is more progress or even return to the genesis of categories and/or solutions that have long been forgotten or neglected.

Cunha, Cunha and Silva's article (2013) aimed to understand the fundamentals of defectology by Vygotski, mainly his studies of visually impaired children. The researchers focus their work on aspects and concepts related to the defect-compensation relationship of visually impaired people. It can be transcended to other disabled people.

Diniz's article (2014) reflects on the documentary entitled "Zagorski Butterflies", broadcasted by BBC in 1992. It is about disabled children, more precisely deaf-blind ones. The author focuses her analysis on a character's talks about some psychological concepts of her disability and the process of overcoming it, while relating them to the teaching methods developed by Vygotski, with emphasis on the ZPD and historical and social construction of social and historical knowledge.

Vieira and Mesquita's article (2015) reports the development of a pilot project which was proposed to a group of teachers at the Municipal Education Department in Goiânia, GO, Brazil, in order to study the fundamentals of Defectology, language and thought and the social formation of mind, in the light of Vigotski (2008, 2011). Their goal was to plan, experiment and evaluate a set of pedagogical actions that would contribute to the reading and writing processes of first graders who had specific educational needs. The authors described and analyzed activities that were carried out and concluded that Vygotski's ideas are pertinent and precise, since disabled students have potentialities. It is the teacher's role to mediate learning and search for alternatives that enable the development of formulations of thought and language.

Silva's article (2015) gives a brief overview of *Fundamentos de defectología*, by connecting some concepts, such as "defect", compensation, higher functions, primary and secondary disabilities and mediation with inclusive education. It means that teachers' action should be a social practice, a pedagogical action which mediates and problematizes systematized contents, considering students' experiences and the events of the current society.

A bibliographical study carried out by Façanha and Fahd (2016) led to an article which highlighted Vygotski's concepts of defectology that could be considered foreshadowing for perception of an inclusive Special Education proposal. Considering Vygotskian concepts of development and learning of disabled people, they concluded that Vygotski advocated the experience of non-segregated Special Education, associated with regular education in order to ensure that all disabled students live together in a common school in accordance with the principle of sociogenesis of higher human functions.

Selau (2015b) showed different theoretical-practical views on psychology and pedagogy of the blind that Vygotski had exposed in his studies of Defectology. He started from the assumption that such views were distributed throughout several texts in *Fundamentos de defectología*, rather than exclusively in the text "*El niño ciego*" [The blind child]. Results showed the changes in Vygotski's conceptions throughout the three phases of the author's studies of blindness. Results motivated a reordering of the reading sequence in *Fundamentos de defectología*. Selau also published an article with the results of his doctoral dissertation (SELAU and DAMIANI, 2016), three years after the conclusion of the research work.

From the reading of these references, it can be inferred that, for the most part, they cover, in a direct or tangential way, the central thesis of The *Fundamentos de defectología*, with the exception of the researches of Fahd (2015) and Würfel (2015), in which the first one correlates the work to the implantation of PNEEPEI (2008b) and a

Brazilian town, and the second makes a general analysis of the use of Vygotski's works in RG 15.

Final considerations

Brazilian education systems have been guided by a National Policy on Special Education from the Perspective of Inclusive Education, the SECADI/MEC since 2008. This official organization, which is responsible for teacher education programs in Brazil, has not included *Fundamentos de defectología* in its didactic materials for teacher education programs that aim at Special Education.

In fact, *Fundamentos de defectología* has been introduced as a theoretical support and focus of analysis and interpretations in research, such as final papers, thesis and dissertations. Its use has been restricted to the Graduate Programs of Higher Education Institutions. In RG 15 – Special Education and RG 20 – Educational Psychology at ANPEd, in the period of this investigation, four studies were found. They were listed, *but cannot be considered texts which were used in the development process of Special Education teachers*.

In the studies analyzed by this paper, such as papers, dissertations, thesis, book chapters and articles, whether included in the ANPEd RG, or not – elaborated after PNEEPEI (BRASIL, 2008b) –, it was possible to verify preliminarily that the illation between *Fundamentos de defectología* and teacher education only occurs in Ferreira's dissertation (2012) and in the article written by Vieira and Mesquita (2015). However, even so, the recommended program should be for inclusive education, rather than merely add to contents which are necessary for the education process of special education teachers (THESING and COSTAS, 2017), which are clearly referenced in the author's thesis (VIGOTSKI, 2011) in two moments of this text.

The research and the investigations under study, in general, allowed us to look at Vygotski's work in a significant way, which maintains its density and complexity. Many of them aimed to connect different aspects of Education, Special Education and Psychology, a fact that also guarantees its "reinvigoration". However, its dissemination as a fundamental work for the development process of Special Education teachers and graduates aims at continuing education in SEA courses, which includes most Brazilian Basic Education teachers.

Therefore, the use of this work as a reference will probably result in a greater understanding of what the disability is, its historical and cultural constitution, the processes of development of people with disabilities, and it also presupposes the formative processes of both Special Education and teachers in general.

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Recebido em 06.09.2018
Aprovado em 26.10.2018

Endereço para correspondência:
Fabiane Adela Tonetto Costas
Universidade Federal de Santa Maria – Campus Sede
Cidade Universitária – Centro de Educação
Av. Roraima, n. 1000 – Prédio 16, sala 3340-b – Bairro Camobi
97105-900 Santa Maria, RS, Brasil