


RELEVANCE OF THE MULTIFUNCTIONAL RESOURCE ROOMS: THE POINT-OF-VIEW OF PRINCIPALS

RELEVÂNCIA DAS SALAS DE RECURSOS MULTIFUNCIONAIS: UMA PERCEPÇÃO DOS GESTORES EDUCACIONAIS

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Abstract. Social movements fighting for the inclusion of people with disabilities have propelled a change in posture regarding moral and ethical values towards persons with disabilities. Inclusion is the fruit of strenuous social fights throughout humankind's history. In the inclusive process, respect towards diversity is a fundamental requisite in order for the transformation of a society that has traditionally been based on exclusion to happen, and the multifunctional resource rooms are a relevant strategy in this. Therefore, it is necessary to understand what are the principals' perception of the work that is developed in said rooms. This study is part of a diagnosis that was carried out in the development of a doctoral thesis that is being elaborated, and that aims to build a methodology that will guide teachers in the making of materials in the teaching of Sciences by using assistive technology based on universal design. This investigation used a qualitative analysis approach, by the means of a semi-structured interview, aiming to identify the point-of-view of principals, that is, to identify the relevance (or lack thereof) of the resource rooms as a means to promote educational inclusion of persons with disabilities. The praxis can be transformed by the results of this investigation. In this sense, this analysis can put into perspective the real and ideal situation of educational inclusion in multifunctional resource rooms, allowing for new improvements.

Keywords: Multifunctional resource rooms; Inclusion; Principals.

Resumo. Os movimentos sociais de inclusão das pessoas com deficiência têm impulsionado a mudança de postura em relação aos valores morais e éticos frente às pessoas com deficiência. A inclusão é fruto de árduas lutas sociais ao longo da história da humanidade. No processo inclusivo, o respeito à diversidade é requisito essencial para a transformação de uma sociedade tradicionalmente pautada pela exclusão e as salas de recursos multifuncionais constituem estratégia relevante. Portanto, faz-se necessário entender qual a percepção dos gestores educacionais sobre dos trabalhos desenvolvidos nessas salas. Destaca-se que este estudo faz parte do trabalho de diagnóstico para o desenvolvimento de uma tese de doutorado que está em elaboração e na qual o objetivo consiste em construir um método que oriente os educadores na produção de material didático para o ensino de Ciências com uso da tecnologia assistiva e ancorado no desenho universal. Essa pesquisa valeu-se de análise qualitativa, utilizando o instrumento da entrevista semiestruturada com a finalidade de rastrear e traçar um recorte acerca da visão dos gestores. Ou seja, identificar a relevância, ou não, das salas de recursos como promotoras da inclusão educacional de pessoas com deficiência. Evidencia-se que a prática vivenciada pode ser transformada a partir dos resultados obtidos nesse trabalho. Sendo assim, essa análise pode contrastar a situação real e ideal da inclusão educacional em salas de recurso multifuncionais, oportunizando processos de aprimoramento.

Palavras chave: Sala de recursos multifuncionais; Inclusão; Gestores educacionais.

INTRODUCTION

Inclusive education can be understood as a process involving the transformation of the education system to serve all learners, regardless of their differences. It should be stressed that this process necessarily requires the engagement of students, educational professionals, political-educational project, infrastructure of schools and family, social and cultural support. In this perspective, this transformative action must allow for a democratic educational environment as a way to promote inclusion.

According to Lavorato and Mól (2017), "in the educational scenario, inclusion plays a fundamental role in the production and dissemination of knowledge, whether in formal or informal education, because the individual is seen in its entirety".

Lavorato and Mól (2017) also state that inclusion requires for the teaching-learning process to happen effectively. The authors defend the idea that "the opportunity for learning empowers and integrates society, but it can also be a source of disintegration, social exclusion and poverty when it does not occur in an equitable manner".



When thinking about educational inclusion, it is essential to recall that, over the years, the terminology that define disability have undergone transformations that follow the development of society. Preoccupation with the language used is yet another way to express respect for people with disabilities and non-discrimination. In contemporaneity, the most appropriate term is “Person with Disability”.

This is the term used on the Convention on the Rights of Persons with Disabilities, approved by the General Assembly of the United Nations in 2006, signed by several countries, including Brazil, that signed it in 2007 and ratified in 2008, giving it the same normative status as a Constitutional Amendment by the Decree 6.949, August 25, 2009.

According to Lavorato (2014), the semantic load of words, accumulated over time, is enough to express prejudice. Nevertheless, some of these terms, such as "disabled persons" and "people with special needs", are still used today, even in official capacities, such as in laws and in the names of social and governmental entities. It is believed that these haven't been updated yet due to the burden of bureaucracy. Some examples that can be identified are “Association of Parents and Friends of the Exceptional” (Apae), “Association of People with Special Needs” (APNEN) and the “Brazilian Association of People with Special Needs” (ABRAPP), among others.

Public policies

According to Souza (2015), current Brazilian public policies are based in laws and resolutions aimed at inclusive education, and guarantees the right of access to quality education for all students in many of its provisions. However, the effective inclusion of students with Specific Educational Needs still is subpar in many schools in our country.

As a general rule, justifications that the school and teachers are not prepared to serve these students needs are often heard. This is an argument that no longer holds true, since - regardless of the student's demand - it is the school's responsibility to organize itself in a manner to accommodate all students and the teacher's responsibility to prepare him/herself, be proactive and get to know their student through a permanent dialogue that makes the student the protagonist of his/her learning process. (SOUZA, 2015, p.55)

It has been like this over the years and it continues to the present day. There will always be a justification, an excuse for the lack of effective inclusion. However, it is fundamental to understand which practices should be adopted to embrace diversity, allowing for the inclusion of these students.

The Inclusive Education Program, created by the Ministry of Education in 2003, guarantees a right to diversity, aiming to transform the educational systems into inclusive educational systems, providing the right of access to schooling with accessibility and specialized educational services. In 2003, the Federal Prosecutor's Office published a document titled "Access of Students with Disabilities to Schools and Common Classes of the Regular Network" (Brazil, 2003), reaffirming the right to schooling of students with and without disabilities in regular classes.

The Education Development Plan, edited in 2007, establishes the implementation of resource rooms, where the necessary tools should be made available to the specific needs of students with disabilities.

Multifunction resource rooms can be considered as transforming environments because they present more favorable conditions for the development of specific skills and abilities that are otherwise limited to the regular classroom environment, shared by students with different specific needs.

The work developed in resource rooms complement the activities carried out in regular classrooms. When assessing the impacts caused by the educational practices carried out in said rooms, it is sought to identify the effectiveness, or lack thereof, of the inclusive process.

In the logic of inclusion, individual differences are recognized and accepted in the construction of new pedagogical praxis. Rodrigues (2003) states that in this new approach, there is no longer

room for exclusion or segregation, and all learners, with or without disabilities, should participate effectively, for the word of order for inclusive education is equity. The inclusive school is one in which everyone has the right to attend it.

Lavorato and Mól (2016) emphasize that meeting a social demand due to the mere compliance with the law does not promote the full and effective exercise of citizenship. The investigation showed that for the concretization of the inclusion it is essential for the pedagogical principles to be rethought and reorganized, that is, for a true social transformation to occur.

Learning process

People learn in different ways and this should be respected when designing an educational action. This aspect does not create a difference between people with and without disabilities; it is broad and it can not be standardized, so it is necessary to consider the specificities and individualities of each learner. No individual is equal to another and the important thing is to motivate and facilitate the understanding the object of learning.

The process of knowledge construction has undergone transformations over the years. However, in the last decades, its evolution is speeding up dramatically. In this context, we have new ways of teaching and learning. That is, it is necessary to develop new teaching and learning skills, so that the new alternatives can be used in a productive manner.

Moran (2007) states that an important concept is that of continuous education, which takes place in the process of constant learning, integrating theory and practice, reflecting on one's own experience, expanding it with new information and relationships. In this sense, modernization in the teaching-learning process is of paramount importance.

This way of thinking replaces old mechanized learning methods that no longer meet the current demand, showing the need to adopt new strategies. Prioritizing a continuous and permanent education, supported by a complex and systemic vision promoted by harmony with new technologies, but nonetheless without forgetting that they are only the means used to reach an end, that is still the learning process.

Coutinho and Lisbôa (2011) point out that we live in a moment of great uncertainty and that in this scenario several challenges arise. The first of these is to try to guarantee the democratization of access to the most varied forms, means and sources through which information circulates so that we can build a more equitable society.

These authors emphasize that we must develop the skills and abilities to transform this information into knowledge and thus develop a taste for lifelong learning, taking into account values such as solidarity, respect, diversity, interaction, collaboration, creativity and, above all, our ability to dare, to invent, to innovate and, at the same time, to be able to assess the risks of our actions.

In Moran's (2007) perspective, changes in education depend not only on new technologies, but on educators, principals and students intellectually, emotionally and ethically developed students. That is, curious, enthusiastic and open people, who know how to motivate and dialogue. People with whom it is worth to get in touch, and get enriched by it. There are few educators who integrate theory and practice and who approach thinking with living.

According to Vygotsky (2001), human potential is developed through interaction with the physical and social environment, the individual constructs knowledge in an active manner from the knowledge that he/she brings. In this sense, the interaction process with the environment and with other people is constructed individually, in a different way.

Nuernberg (2008) reports that the post-revolution of 1917 period brought with it thousands of children in vulnerable conditions and many of them with disabilities. In an attempt to respond adequately to this social demand, the Soviet government involved Vygotsky in the elaboration of educational proposals consistent with the political and social context at the time. In this context, to meet the educational needs of children with disabilities, Vygotsky created, in 1925, a psychology laboratory. This originated, in 1929, the Experimental Institute of Defectology, in which some of his research was developed.

When the individual is a person with a disability, this process can be hampered by communicative and attitudinal barriers, often created by a lack of knowledge or lack of availability of assistive technologies or resources.

Oliveira (1995) states that in Vygotsky's theory of compensation, the visually impaired person can compensate for his limitation using the other neural pathways. That is, when a sense is compromised, the neuronal system - through cerebral plasticity - manages to develop new connections and new synapses. This process allows the formation of new networks to meet the lack of a certain function. Thus, stimulating the other senses, the person can develop and have a perception of the environment, the world, the relationships and the people, among others.

Disability should not be seen as an issue, since it does not prevent a person from living a healthy life if they are offered accessible possibilities. Respect for diversity is the basis for understanding that a person has a disability and is not a disability itself.

In this sense, according to Lavorato and Mól (2017), it is essential to develop strategies that provide learning situations that stimulate the remaining senses of the person with disabilities, the initiative and active participation.

The learning process should encourage exploratory behavior and experimentation to construct a global perception, which is essential to the process of analysis and synthesis. Likewise, discrimination and certain attitudes, such as overprotection, must not be allowed to happen in the teaching-learning process.

Resource rooms

According to Kassar and Rebelo (2011), there is a double connotation of specialized educational assistance: concomitant support for teaching in order to substitute the schooling of students with disabilities, which can be provided in “special classes, special schools, hospital classes and home care”.

Kassar and Rebelo (2011) point out that, in the last ten years, the policy proposed by the Federal Government started to disregard the possibility of offering schooling outside the common system of education.

The instrument used to legally define this guarantee was the Decree No. 6.571, edited in September 17, 2008, which allows the performance of specialized educational services in a supplementary and non-substitutive way. That is, specialized institutions should organize themselves as centers of specialized educational services, offering complementary or supplementary actions to common school spaces.

According to Barbalho and Porto (1992) in the Brazilian 1988 Federal Constitution, people with disabilities have the right to education carried out in common classes and to specialized or complementary educational services to schooling, which should preferably be done in resource rooms at the school where they are originally enrolled, in another school, or in specialized educational service centers.

According to Corrêa (2012), the specialized educational service is a way of ensuring that the particularities of each student with a disability, high skills or gifted students are recognized and cared for.

In this sense, a Multifunctional Resource Room is a space organized with didactic and pedagogical materials, equipment and professionals with training to attend to special educational needs, promoting the construction and dissemination of knowledge.

According to Lavorato and Mól (2016), the Education Development Plan of 2007 establishes the implementation of resource rooms, where the necessary tools should be available to the specific needs of the student with disabilities, with the availability of assistive technology, such as softwares, books in braille, optical and non-optical resources, suitable furniture, among others, to promote educational development.

Multifunctional resource rooms can be considered as transforming environments because they may present more favorable conditions for the development of specific skills and abilities that are otherwise limited to the regular classroom environment, shared by students with different specific needs.

The works developed in the resource rooms complement the activities carried out in the regular classrooms. When assessing the impacts caused by the educational practices carried out in resource rooms, it is sought to identify the effectiveness or lack thereof of the inclusive process.

Corrêa (2012) points out that the same resource room, according to the schedule, can benefit students with disabilities, with high skills/giftedness, dyslexia, hyperactivity, attention deficit or other special educational needs.

There is a great variety of materials and pedagogical resources that can be used in the Multifunctional Resource Room or even in the regular classroom, among which are: pedagogical games that value playful aspects, creativity and the development of strategies of logic and thought; adapted games, such as those made with graphic symbology, used in the communication boards corresponding to the activity proposed by the teacher; books printed out in enlarged letters, in Braille, digitized in Libras, spoken books; specific features such as reglette, soroban, signature guide, adapted drawing material, magnifying glass, audio calculators, adapted furniture and many others. (Corrêa, 2012)

According to Lavorato and Mól (2017), for all learners, the activities carried out should develop initiative and autonomy, providing pleasure and motivation in learning, since an environment favorable to the construction of knowledge should encourage active participation. Self-confidence will contribute to the effectiveness in the learning process. In this perspective, the resource room is essential in promoting human development.

METHODOLOGY

This paper was carried out as a field research, an empirical and in loco research with qualitative approach. Due to the objective of identifying the perception of principals in the Federal District, the qualitative method of content analysis was chosen for this research.

This analysis follows the principles of Bardin (1977), since it aimed to qualify the experiences of the subject, as well as their perceptions about a certain object and its phenomena. In the development of the questions, we divided categories of analysis.

Minayo (2007, p. 406) points out that from this categorization, the analyst "proposes inferences and performs interpretations, interrelating them with the theoretical framework initially designed or reveals other clues about new theoretical and interpretative dimensions, suggested by reading the material".

The public that participated in this research was composed of ten principals from public schools located in Brasilia, capital of Brazil, in the Federal District, who performed their activities in schools that have multifunctional resource rooms and that agreed to contribute to this research. To ensure interviewees' anonymity in the survey, identities have been preserved and their names replaced by relevant words used in educational inclusion.

Table 1 presents information about participants. This representation contributes to the better understand and analyze the data discussed and presented in this paper. Knowing data such as age, gender, management experience, numbers of students and number of teachers in the resource rooms helps to understand the complexity of the subject.

Even though this is a qualitative analysis, the numbers help to highlight the reality of the educational context in which the research was developed, since the data are complementary within a systemic view of the whole.

Table 1. Syntesis of collected data.

PRINCIPAL	AGE	GENDER	EXPERIENCE IN MANAGEMENT	STUDENTS	TEACHER IN THE RESOURCE ROOM
Inclusion	47	Male	7 years	1.800	2
Barriers	40	Female	8 years	1.500	2
Equity	38	Female	12 years	900	1
Diversity	51	Female	9 years	900	1

Plurality	61	Male	9 years	1.000	2
Mobility	50	Female	3 years	370	1
Affirmative Action	51	Female	3 years	370	1
Assistive Technology	46	Female	3 years	500	1
Universal Design	31	Male	6 years	1.600	6
Reasonable Adaptates	55	Male	2 years	1.300	2

Source: the author, 2016.

In order to develop this research, the interview was used as technique and as a tool a semi-structured script was developed. The semi-structured interview adopted the following criteria:

- Aim: develop data that express the point-of-view of principals about the work developed in the resource rooms.
- Definition of questions: the semi-structured questions were made and grouped in a way to allow the point-of-view of the interviewees to be shown.
- Classification of the questions: open-ended questions were used, with the possibility to contemplate subjective questions presented by the interviewees. This was done in this way in order to allow for the point-of-view of the interviewees to be made clear.

RESULTS AND DISCUSSION

After the interviews, the data obtained was systematized, compiled and categorized. In this context, the categories will be presented in the same sequence used in the interview. From the description of contents the following perceptions were evidenced:

Principals – Among the principals interviewed, only "Pluralism" did not exercise a teaching activity prior to assuming the management of the school. All the other interviewees were teachers before assuming the position. The principal "Assistive Technology" was a resource center teacher for six years before taking over the management of the school. It was pointed out by the principals that previous experience as a teacher subsidized the performance as a school manager, since this experience is important to obtain a more realistic view of the school's context.

Students – It was evidenced that in all interviewed schools, the principals stated that the resource room is available for all students with some disability or disorder. However, this service, in none of the schools surveyed, is available for the Education of Youth and Adults. It was emphasized that it would be important to expand the scope of these rooms, also allowing for youth and adult students, who did not have educational opportunities at the appropriate age, but who still have a need for specialized care.

Available shifts – Among the schools contemplated in the research, only one school provides access to the resource room at the same shift as the regular class. The principal "Reasonable Adaptation" states that this measure was adopted so that the students could have the other shift free to attend physical therapies and complementary medical care. The other schools attend primarily the contrary shift to regular classes. In the principals' speech, it was evidenced that the service is individualized, with a duration of approximately fifty minutes, with weekly frequency. The principal "Universal Design" was the only one to state that the students attend the resource room twice a week. Since the room a strategy to complement education, it would be ideal for it to be offered on the contrary shift to regular classes. However, this isn't always possible, be it due to limitation of the school or limitations of the family, that can't take the student to the school on both shifts.

Oversight – Regarding the oversight of the activities, only "Inclusion", "Equity" and "Mobility" stated that they oversee the activities directly with the teachers who work in the resource room. The other principals carry out this monitoring with the intermediation of supervisors and

pedagogical coordinators. All of the interviewees said that decisions are taken together and with the participation of the principals. The democratic management, which governs educational relations in the Federal District and which are a general rule for all educational establishments, demands that the decision-making process be taken together and considering the best alternative for the student.

Number of Available Teachers – Of the interviewed principals, only "Universal Design" reported not having problems regarding the number of teachers in the resource room, and this school is the only one that offers individualized services twice a week. All other principals reported several difficulties regarding the lack of qualified professionals to work in the resource room. They claim that every day new complaints appear and the number of students requiring this service increases, even though the school does not have professionals to care for them. They also point out that the demand is far beyond the conditions of their service. This reality, in the Federal District and throughout the country, is not exclusive to the resource room, but as a whole. The number of available teachers isn't enough considering how many students are enrolled in the system. The demand is much greater than the supply, resulting in overcrowded classes and generating difficulties for teachers.

Relevance of the Resource Rooms – All of the interviewed principals emphasized the importance of the resource room for achieving better educational and personal results for students and interaction with others. In the school oversaw by "Plurality", the resource room is also used to carry out a class of Brazilian Sign Language (Libras) for all students of the school, so that listening students can interact with deaf students. The project is an example of successful inclusion in schools. It was necessary to create a waiting list so that the hearing students could take the Libras class due to the great demand and lack of qualified teachers who could teach the course. This is also an example of how the resource room can develop activities that contemplate all students, regardless of disability or not.

Demand – Unfortunately this was an issue raised by all principals, in the sense that every day demand for attendance of the resource room increases, but the available spots don't, be it for a lack of professionals or financial and physical restraints. Most resource rooms work in cubicles that do not hold a regular classroom. Another point raised by the principals was the difficulty of receiving a medical report on the needs of each student, which often takes up to two years to be elaborated. Faced with so much delay, with the help of the family, the professionals of the resource room begin to care for the student, even without the medical document. It should be emphasized that the report would be fundamental for the professional to select methodologies and techniques more appropriate to that student.

Results – Principals point out that even in the face of so many difficulties in keeping resource rooms functioning properly, they do not give up because of the excellent results obtained. Resource room teachers develop customized curriculum adaptations, helping the development of students in the regular classroom. From this perspective, the principals report that the work of resource room teachers is essential in promoting school inclusion.

Message to politicians – The principals presented a real insight into how a resource room works and how it should work. Thus, suggestions to politicians included: continued training for teachers; investment in technological equipment, adequate teaching material and assistive technology; sufficient physical space to develop activities; and greater participation in the day-to-day life of schools, as they could develop public policies closer to school reality and not from an idealized view from their governmental cabinets.

Message to the resource room's teachers – In this aspect the principals were emphatic in highlighting the good work developed by these professionals. Some principals pointed out that only the desire to help others is able to explain the work of excellence developed in the face of so many difficulties and shortcomings. They congratulated the professionals and stressed that the motivation of these teachers is responsible for the work developed. They also point out that these professionals seek on their own to develop, train and seek solutions for effective work. Therefore,

the results achieved are merit of these professionals. From the perspective of the principals, these professionals make a difference in the results of the school and in the lives of the students.

Reflexions – During the interviews, some speeches represent the gap between the theory and practice of inclusive education. It sounds like a cry for help full of meanings:

“Inclusion is not a joke. The government pretends that there is inclusion, but it is a just a nice speech for the media”.

“To say that the student belongs to the Education Secretary is a lie. The student is a responsibility of the teacher, and she/he needs to do whatever is necessary in order to teach”.

“The work can’t be done only with chalk and markers. We also need resourcers”

“In the public schools, the parentes don’t even know the name of their kid’s teachers. Take a look if the same happens on private schools. In there, the parent’s are paying and asking for results”.

“We have to wait, in average, two years for a diagnosis. In this time, what is the situation of the student?”.

“In order to afford materials for the resource rooms we organize raffles”.

“I have to buy materials for the resource rooms with my own money”.

“Teacher in resource rooms have to be persistent, because the adversities are overwhelming”.

This shows the effort of teachers to do a good job despite the lack of infrastructure and investment in education. In this sense, it takes a lot more than well-intentioned teachers to develop inclusive learning processes that effectively meet social demand, providing the training of autonomous subjects and protagonists of their own stories.

CONCLUSION

Given the reality and objective of this paper, the perceptions of principals about the work developed in these multifunctional resource rooms can be evidenced through a qualitative analysis to show the educational reality of the Federal District.

The resource rooms are perceived as an opportunity to achieve the educational inclusion of people with disabilities. It is responsible for mediating this process, providing the student with resources that facilitate their learning and providing the teacher with alternatives to promote teaching.

The resource room requires a different look from the principals, but above all a different look from the governments that create the public policies. We walk on the road to inclusion, but are still far from the destination.

REFERENCES

Barbalho, J., & Porto, W. C. (1992). *Constituição federal brasileira: comentários*. Senado Federal, Secretaria de Documentação e Informação.

Bardin, L. (1977) *Análise de conteúdo*. Lisboa: Edições.

Brazil, M. RESOLUÇÃO CNE/CP1 e CP02, de 18 de fevereiro de 2002. Diretrizes Curriculares Nacionais para a Formação de Professores da Educação Básica, em nível superior, curso de licenciatura, de graduação plena. DOU Brasília de, 4, 8.

Brazil, C. D. (2009). Decreto nº 6.949, de 25 de agosto de 2009. Promulga a Convenção Internacional sobre os Direitos das Pessoas com Deficiência e seu Protocolo Facultativo, assinados em Nova York, em 30 de março de 2007. Diário Oficial da União.

Corrêa, N. M. (2012). *Salas de recursos multifuncionais e Plano de Ações Articuladas em Campo Grande–MS: análise dos indicadores*.

- Coutinho, C. P.; Lisbôa, E. S. Sociedade da informação, do conhecimento e da aprendizagem: desafios para educação no século XXI. *Revista de Educação*, v. 18, n. 1, p. 5-22, 2011.
- Kassar, M. D. C. M., & Rebelo, A. S. (2011). O “especial” na educação, o atendimento especializado e a educação especial. *Prática Pedagógica na educação especial: multiplicidade do atendimento educacional especializado*. Araraquara, SP: Junqueira& Marin.
- Lavorato, S. U. (2014). Acessibilidade nas ações educacionais a distância: um caminho para inclusão da pessoa com deficiência visual no contexto organizacional. *Repositório UCB*.
- Lavorato, S. U., & de Souza Mól, G. (2016). Percepção acerca da inclusão educacional na disciplina de química por alunos com deficiência visual. *CIAIQ2016*, 1.
- Lavorato, S. U., & Mól, G. S. (2017). Sala de recursos multifuncionais sob a ótica dos gestores educacionais do Distrito Federal. *CIAIQ 2017*, 1.
- Minayo, M. D. S. (2007). *Técnicas de análise do material qualitativo. O desafio do conhecimento: pesquisa qualitativa em saúde*. São Paulo: Hucitec.
- Moran, J. M. et al. As mídias na educação. *Desafios na Comunicação Pessoal: gerenciamento integrado da comunicação pessoal, social e tecnológica*, v. 3, p. 162-166, 2007.
- Nuernberg, A. H. (2008). Contribuições de Vigotski para a educação de pessoas com deficiência visual. *Psicologia em estudo*, 13(2), 307-316.
- Oliveira, M K. Pensar a educação: contribuições de Vygotsky. *Piaget-Vygotsky: novas contribuições para o debate*, v. 6, p. 51-83, 1995
- Rodrigues, A. J. (2003). Contextos de aprendizagem e integração/inclusão de alunos com necessidades educacionais especiais. *Educação especial: do quereraofazer*. São Paulo: Avercamp, 13-26.
- Souza, A M. Identificando práticas pedagógicas inclusivas na sala de aula. 2015.
- Vygotsky, L. S. (2001) *Obras escogidas II (Incluye Pensamiento y Lenguaje Conferências)*. Madrid: Machado Livros.

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