REPORT OF EXPERIENCE AND TEACHING PRACTICE WORKING ON THE EDUCATIONAL INTEGRATION OF BLIND STUDENTS

Victor Lucas Caldeira* Hugo Silva Ferreira**

* Professor of the State Department of Education of Minas Gerais. Degree in Sociology by Unopar. He is a student in the Post-Graduation Lato Sensu Course in Distance Education 4.0, at Sociedade Técnica Educacional da Lapa (FAEL), and in Sociology Teaching, at the Federal University of Mato Grosso do Sul (UFMS). He is also enrolled in the Technical-Vocational Course in Translation and Interpretation of sign language at Escola Estadual Francisco Sales - Institute of Speech and Hearing Impairment (IDFA). Contagem, Minas Gerais, Brasil. Orcid: https://orcid. org/0000-0001-9017-2647. E-mail: victorlcaldeira1996@gmail.com

** Professor and Associate researcher of the Program of Studies in Engineering, Society and Technology of the Centro Federal de Educação Tecnológica (Federal Center for Technological Education) of Minas Gerais (Cefet-MG). Post-graduate degree in Higher Education Teaching and MBA in People Management and Corporate Education at Vale Elvira Dayrell Faculty and Educamais Faculty, respectively. Master's degree in Administration by MUST University. Contagem, Minas Gerais, Brazil. Orcid: https://orcid.org/0000-0002-6511-9673 E-mail: prof.hugosferreira@gmail.com

Received for publication on 3.28.2020

Approved on 11.5.2020

Abstract

This article develops in its scope the report of experiences in teaching practice with blind students. It aims to portray the didactic methods internalized in this daily life. The compilation of information was obtained empirically, through observations arising from coexistence, descriptions obtained directly with the students, as well as bibliographic research. The experience highlights the challenge of working inclusively, since the current teacher training does not anticipate examples of reality, demanding from the educator a dynamic and proactive stance, capable of educating in the process of human integration in the school environment.

Keywords: Teaching practices. Inclusion. Didactic. Dynamism. Visual impairment.

1. Introduction

Impaired people were treated as passive beneficiaries of support, with feelings of pity (LAMICHHANE; SAWADA, 2013). In Brazil, after the approach to the rights of impaired people in Art. 201 of the Federal Constitution of 1988, paths have been opened for new legislation within the subject. Act No. 7,853 of 1989 and Decree No. 3,298 of December 20, 1999, characterized a milestone in the labor market. For them, standards and conduct for accessibility constituted a new way of facing the integration of impaired people in Brazil (BRAZIL, 1999).

Nowadays, Brazil is experiencing a stage of the emergence of social movements that demand the full implementation of the rights conquered, but in many cases not respected (FRANÇA; PAGLIUCA; BAPTISTA, 2008). Likewise, the rights to education stand out, which all must enjoy regardless of the individual's clinical condition. Therefore, in many cases, there is no full enjoyment of this right due to the conditioning factors for its full implementation. Teacher education and training are one of the conditioning factors for the integration of regular education students and special ones.

Teacher education and training are one of the conditioning factors for the integration of regular education students and special ones According to the document National Curriculum Guidelines for Basic Education, the Law of Directives and Bases of National Education (LDB) prescribes to the states and the Federal District, among the tasks, to ensure Elementary Education, and offer, with priority, Secondary Education to all who demand it (CONSELHO NACIONAL DE EDUCAÇÃO, 2013). Therefore, it is the right of every child and adolescent to have access to education, and there must be a priority in their education as a teaching principle so that there is the possibility of dealing with all types of public, to positively receive all the challenges that their profession demands.

In the School Census of Basic Education, conducted by the National Institute for Educational Studies and Research "Anísio Teixeira" (Inep), an organ linked to the Ministry of Education (MEC), in 2010, 45,606,048 people declared to have some disability, which corresponds to 23.9% of the total inventoried population. Of the total number of people, 82,525 enrolled in basic education with visual impairment (among special class and general education classrooms). Four years later, when analyzing the data of the 2014 Census (Graph 1), there was a considerable reduction in enrollment, adding a total of 76,481 students. The reduction is visible both in the special class and in the ordinary class.



Graph 1- Enrolment of visually impaired students in Basic Education

Source: Censo Escolar MEC/INEP (2014).

In 2017, according to information from the Observatory of the National Education Plan (OPNE), the percentage of enrollments of students with disabilities, global developmental disorders, and high skills or giftedness showed growth in the general education classrooms, reaching the mark of 84.12 percentage points when compared to the same period in 2007, showing an increase of 37.3 percentage points in the demand for places for special students in non-specialized schools for this differentiated public. However, enrollment in exclusive schools decreased by 27.8 percentage points, totaling 13.6% in the 2017 school census. In the same year, enrolments in special classes showed a lower rate, with 2.3%. The conclusion, by analyzing the data, is that there is an imminent increase in students enrolled in general education classrooms, in basic regular education, who have some kind of disability or giftedness. Education professionals need to accompany this growth through continuing education and additional training in special education. The preparation of architectural structures to receive special students is also a fundamental factor in including them.

Not all complementary training on special education constitutes the completeness of the need for pedagogical practice On the other hand, students with visual impairment decreased in basic regular education, which raises questions about the real preparation of educational institutions and education professionals to receive this audience and promote the quality of education according to their special needs. In the report of experience and teaching practice that this article aims to present, it is evident that students with visual impairment use braille writing to exercise the functions of formal writing during teaching, but education professionals of the school where this research was developed do not understand this language.

The number of teachers with special education training in 2014 was 97,459 professionals, an increase of 189% since the 2003 census. This is a relatively small amount compared to the total of 886,815 students targeted for special education in public schools of basic education, as

recorded by the 2014 census. Raising study questions on the topic to understand the drop in enrollment of the visually impaired in regular basic education is one of the functions of this report. Therefore, it is important to diagnose and validate the real development of educators, since not all complementary training on special education constitutes the completeness of the need for pedagogical practice.

MEC, in 2019, adopted measures to make access to the National High School Exam (Enem) equal for all participants, with or without disabilities. These measures can be reproduced in the day-to-day inclusive education, being solutions for the educational institution and the teaching professional, as an alternative to the reception of disabled students. Among the measures are braille tests; Brazilian Sign Language Translator-Interpreter; tests with enlarged and super-enlarged letters; guide-interpreter for people with deaf-blindness; utilities for reading and transcription; lip reading; additional time; accessible room and furniture.

As a method, the proximity and understanding of the social structures arising from each student are efficient, thus creating accessibility to understanding their needs, the resources that each student has, and the particularities of each disability. This method gives the security to building a work plan for better production and performance, as "knowing the student's global development, diagnosis, functional vision assessment, family and social context, as well as the alternatives and available resources, facilitate the planning of activities and the organization of pedagogical work" (SÁ; CAMPOS; SILVA, 2007, p. 19). Taking into account all these factors, this article aims to present the report of teaching experience in an educational institution with visually impaired students.

2. The teaching experience

The respective report will use the case of two distinct students, one coming from the first year of high school, which will be called A1, and the other coming from the third year of high school, whose identity will be A2. It is important to emphasize that in both cases, there is the specificity of blindness in a unique way, without the burden of cognitive impairments. The experience acquired with students A1 and A2 comes from the beginning of the year 2020. The information that there would be students with visual impairments in classrooms caused, through the scarcity of practical teaching experience, discomfort, and insecurity. The concern with the quality of teaching is a question that contributes to the teacher's insecurity but also instigates a strong desire for adaptability for the integration of the two students in the general learning process.

Even with full mastery of teaching didactics, practice is a precious object of complementing teacher training. Without it, it is not possible to experience all the perceptions of the teaching and learning process, which escapes the theoretical complexity of learning of a graduate teacher. According to Nunes (2001), the teacher, in his professional career, faces the pedagogical practices that lead him to form knowledge according to the needs in the exercise of teaching. These pieces of information constitute the experiences so as the training and professional paths of this tutor.

In this line of reasoning, Brzezinski and Garrido (2002) stand out with theoretical foundations of how much teacher training courses correspond to the demands of contemporary scientific and technological society, that is, whether the skills currently developed within the theoretical-practical context are forming true professionals. Therefore, they warn:

It is necessary to call into question the pedagogical training of the graduate, who, according to some researches, no longer meets the requirements of preparing for teaching, as well as it is essential to identify the reasons for the constant resistance of trainees and teachers to modify their pedagogical practices (BRZEZINSKI; GARRIDO, 2002, p. 322).

According to Altet (2001), academic training initiates teachers in their professional functions, and their practical experiences form their professionalism.

The lived experience, the intimate knowledge of the situations, the immersion in the craft, the internships to observe the work of colleagues, the tested pedagogical initiatives, and the innovations are what enable the teachers to know what they need to do and how to do it [...] Professionalism is constituted not only with experience and practice in the classroom but also with the help of a mediator who facilitates awareness and knowledge (ALTET, 2001, p. 31-32).

In this context, the lived experience object of this research stands out as instructional pedagogical material for other professionals, as new teachers will be able to develop the critical formative sense in the light of the benefits of pedagogical practice. From the challenge acquired at the beginning of 2020, when faced with the need to teach equally in an integrated manner with students in atypical learning situations, the first step towards good professional preparation was understanding. Trying to understand the conditions of the two students was crucial to develop the teacher positioning, as well as the didactic and active teaching methodology, able to help them qualitatively in the learning process.

The first stage of preparation for the class was prospecting benchmarking for the teaching process, with the assimilation of some suitable practices carried out by other education professionals who have experienced a similar situation. The benchmarking cases studied showed, for example, that both students, A1 and A2, did not present developmental delays or impairment of cognitive functions. On the contrary, student A1, who was 16 years old, notoriously squandered commitment, attention, and focus. According to the data collected, both showed prodigious effortlessness of integration in the communication process and responses to the commands passed on to the class, emphasizing Vigotsky's (1997) idea that a person who does not use vision is only blind.

The first step towards good professional preparation was understanding Student A1, to record the subjects passed in class (spoken content), used a braille typewriter but was unable to reproduce the contents written on the blackboard, in printed materials, or technological teaching resources, such as slides. This fact brought discomfort to the Faculty of the institution since their lack of understanding of the braille language made it impossible to send the contents to student A1. On the other hand, student A2, 18 years old, was communicative, actively participating in classes, with a high critical sense in content debates. He did not copy the subjects in the classroom (written or spoken content) but used

software for learning and converting texts into sounds. With this tool at home, the day before class, he performed a rigorous study by listening to all the material. For this learning process, the teacher sent the next class material in the e-mail of the student A2 so that he prepared himself, arriving in the room with all the subject and questions memorized. Remembering that for this software, the teacher did not have

to send the content in braille because the technological resource in which A2 had skills had already converted the writing texts into sounds. A1 wrote all the braille content in the room, while A2, in turn, kept the process of receiving texts by e-mail and, using software developed for the visually impaired audience, converted them to sound models, obtaining the possibility to register them in braille and format them in auditory access. But as A1 did not have the skills or softwares to proceed in learning like student A2, he was hampered by not having access to the contents the teachers wrote on the blackboard.

So, a teaching intervention to create effective and egalitarian teaching methodology among students has become essential. In order to solve this problem, the experiment proposed a system of rotation among A1 classmates so that the staggered student was responsible for dictating all the subjects the teacher had written, so the transposition of the written and spoken content into braille was easier. Its effectiveness was soon noticed, strengthening the interaction between students. The rotation of the auxiliary students created a bond between the students, promoting a feeling of support and collectivity. Another gain of this implemented methodology was that, during the process, it was found that the auxiliary students strengthened their own knowledge by performing the communication and re-reading of the content written on blackboard. They also expanded the capacity to produce abstracts and developed better human interaction in the classroom.

In recent years, the process of inclusion of impaired students in the regular education system is one of the most heated discussions in Brazil due to the need for support and promotion that the legislation imposes. However, the teacher's unpreparedness to receive impaired students within the regular classroom is evident, as well shown in the results of the researches of the scholars Naujorks (2002), Santos (2007), Smeha and Ferreira (2008), and Rodrigues (2008). It is not enough to impose and note the need to include impaired students in the regular classroom if educators do not have the skills that qualitatively promote the teaching process.

The process of inclusion of impaired students in the regular education system is one of the most heated discussions According to Smeha and Ferreira (2008), following the concept of competence for education, while still presenting itself as an enigma for educators, it then becomes a factor of professional discouragement in the area. Competences are essential knowledge for understanding issues related to educator training and practice. When inserted in educational institutions, they are a key starting point for the formation of students with disabilities (AZAMBUJA; SOUZA; PAVÃO, 2012). However, even with all these needs, it is important to highlight that personal skills, acquired for each particular case, are necessary to deal with students with disabilities daily.

After solving the first problem, the student body accused that corrections of students' Portuguese were not possible, and this point was a major failure in the process of verifying the quality of students' writing, impairing literacy processes and their training as individuals. By focusing on the development of personal and professional skills intrinsic in the teaching process of students A1 and A2, the teachers proposed a method of verifying the Portuguese of both students. A1, the student who uses braille writing in the classroom, would perform the reading of all the material A2 had written, redacted through its translation software, and converted into braille. And, A2 would review the writing of A1, produced daily within the classroom. In the intermediation process, the teacher could check the Portuguese of each student and make the learning more satisfactory for both students. In this situation, there is a need to unite the two students in this teaching practice. Through the method of critical observation by the teacher of the educational institution, this practice has become efficient, and it is possible to extend it for the application of tests.

During the 1st semester of 2020, in the emergence of free periods, the teacher dictated the test from A2 to A1, transposing it into braille, a process that requires time and attention. In the case of A2, the proof of A1 was sent via e-mail during the bimonthly period. He delivered the proof transposed to braille on a combined date, an efficient procedure that does not burden any of the parties involved. This is an example of teacher adaptability to improve the teaching process by integrating regular and impaired students.

As Pereira (2013) exposes, wisdom in education is integrated to learning to learn, to coexist, and to be, a knowledge that guarantees the development of the teaching professional and the improvement of the essential skills for the performance of the profession. In order to implement a teaching practice proposal, this experiment adopted methodologies of critical observation, bibliographic research, and active interaction with educational experiences of the other professionals on the subject. The teaching process was effective by the use of pedagogical tools capable of developing personal skills and human abilities. Through dialogue, they built a pedagogical interaction capable of creating channels of problem solving and amplification of engagement with the presented ideas. Teachers and students used the feedback as a tool to indicate whether the final result was positive or negative.

3. Final considerations

Based on the practical experiences and bibliographic studies carried out in this study, it is clear the need to implement a more efficient teacher training program, not only continuing education, which is currently the most widespread resource for such preparation. The training process should be guided not only by theoretical studies but by the acquired practical expertise eminently essential for the qualitative growth of the personal and human skills of the professional educator.

The issues raised in the description of this report lead us to understand that special education is feasible to be achieved and integrated with regular education due to the dynamic advances in teaching didactics and the methodological availability of teaching professionals, combined with the advances in medical, psychological, and pedagogical knowledge. Here the expertise of teaching pedagogical knowledge

stands out as a circumstantial tool for the teaching process for students A1 and A2 be positive.

It would be possible to move further on the subject of study and present the difficulties imposed throughout the school year of 2020. However, this is not the main purpose of this report, since the complexity experienced by several situations with the two blind students raises questions of great scope for researchers. Thus, it is sought, from what was briefly exposed, to think questions that dynamize this text: How is the process of evaluation and diagnosis of teacher training? Is the current teacher training strengthened in pillars of personal and human development? In the academic training of education professionals, is there professional training for situations of pedagogical inclusion?

It is worth noting that the solutions adopted in this report were pedagogical measures applied according to the needs and the available resources. It is evident that a teacher training for reading in braille or even technological resources for the adaptability of teaching materials to this audience is a more effective way for the process of educational inclusion of disabled students. However, as protagonists of knowledge, the teachers responsible for this research assume a posture for charging the authorities with the adaptations in the school environment that can make it more inclusive. Therefore, reflecting on these arguments, the problems of the theme are evident, because they point out a mode of action of the professional educator, determining by itself the dimensions of the quality of teaching capable of validating the pedagogical process.

Referências

ALTET, Marguerite. As competências do professor profissional: entre conhecimentos, esquemas de ação e adaptação, saber analisar. *In*: ALTET, Marguerite; CHARLIER, Eveline; PAQUAY, Léopold; PERRENOUD, Philippe. **Formando professores profissionais:** quais estratégias? Quais competências? Porto Alegre: ARTMED, 2001. p. 31-32.

AZAMBUJA, Guacira de; SOUZA, Carmen Rosane Segatto e; PAVÃO, Sílvia Maria de Oliveira. Cultura de educação inclusiva: a educação especial e os processos formativos de professores. **Revista Reflexão e Ação**, Santa Cruz do Sul, v. 20, n. 2, p. 291-308, jun./dez. 2012. DOI 10.17058/rea.v20i2.2770. Disponível em: https://online.unisc.br/seer/index.php/reflex/article/view/2770/2249. Acesso em: 12 mar. 2020.

BRASIL. Ministério da Educação. **Pessoas com deficiência**. Brasília, DF: MEC, [1999]. Disponível em: http://portal.mec.gov.br/component/tags/tag/32105-pessoas-com-deficiencia. Acesso em: 27 mar. 2020.

BRASIL. Ministério da Educação. **Principais indicadores da educação de pessoas com deficiência**: Censo MEC/INEP. Brasília, DF: MEC, [2014?]. Disponível em: http:// portal.mec.gov.br/index.php?option=com_docman&view=download&alias=17655-secadi-principais-indicadores-da-educacao-especial&category_slug=junho-2015-pdf&Itemid=30192. Acesso em: 12 mar. 2020.

BRZEZINSKI, Iria; GARRIDO, Elza. O que revelam os trabalhos apresentados no GT Formação de Professores da ANPED. **Série Estado do Conhecimento**, Brasília, DF, v. 1, n. 6, p. 303-328, 2002. Tema: Formação de Professores no Brasil (1990-1998).

CONSELHO NACIONAL DE EDUCAÇÃO (Brasil). Câmara Nacional de Educação Básica. **Diretrizes curriculares nacionais da educação básica**. Brasília, DF: MEC, 2013. Disponível em: http://portal.mec.gov.br/index.php?option=com_ docman&view=download&alias=15548-d-c-n-educacao-basica-novapdf&Itemid=30192. Acesso em: 12 de mar. 2020.

FRANCA, Inacia Sátiro Xavier de; PAGLIUCA, Lorita Marlena Freitag; BAPTISTA, Rosilene Santos. Política de inclusão do portador de deficiência: possibilidades e limites. **Acta Paulista de Enfermagem**, São Paulo, v. 21, n. 1, p. 112-116, jan./ mar. 2008. DOI 10.1590/S0103-21002008000100018. Disponível em: https://www. scielo.br/pdf/ape/v21n1/pt_17.pdf. Acesso em: 12 mar. 2020.

LAMICHHANE, Kamal; SAWADA, Yasuyuki. Disability and returns to education in a developing country. **Economics of Education Review**, *[s. l.]*, v. 37, p. 85-94, 2013. DOI. 10.1016/j.econedurev.2013.08.007. Disponível em: https://www.sciencedirect. com/science/article/abs/pii/S027277571300109X. Acesso em: 12 mar. 2020.

NAUJORKS, Maria Inês. Stress e inclusão: indicadores de stress em professores frente à inclusão de alunos com necessidades educacionais especiais. **Revista Educação Especial**, Santa Maria, RS, n. 20, p. 117-25, 2002. DOI 10.5902/1984686X. Disponível em: https://periodicos.ufsm.br/educacaoespecial/article/view/5125/3105. Acesso em: 12 mar. 2020.

NUNES, Célia Maria Fernandes. Saberes docentes e formação de professores: um breve panorama da pesquisa brasileira. **Educação & Sociedade**, Campinas, ano 22, n. 74, p. 27-42, abr. 2001. Disponível em: https://www.scielo.br/pdf/es/v22n74/ a03v2274.pdf. Acesso em: 12 mar. 2020.

PEREIRA, Fabiana Kremem. Pedagogia das competências na educação profissional: contribuições da formação continuada para saberes e competência docente. **E-Tech: Tecnologias para Competitividade Industrial**, n. 3. esp. Educação, p. 31-52, 2013. DOI 10.18624/e-tech.v0i0.393. Disponível em: http://etech.sc.senai.br/index. php/edicao01/article/view/393/334. Acesso em: 12 mar. 2020. RODRIGUES, David. Desenvolver a educação inclusiva: dimensões do desenvolvimento profissional. **Inclusão – Revista da Educação Especial**, Brasília, DF, v. 4, n. 2, p. 7-16, jul./out. 2008.

SÁ, Elizabet Dias de; CAMPOS, Izilda Maria de; SILVA, Myriam Beatriz Campolina. **Atendimento educacional especializado**: deficiência visual. Brasília, DF: SEESP/SEED/MEC, 2007.

SANTOS, Mônica Pereira dos. **Relatório de pesquisa**: ressignificando a formação de professores para uma educação inclusiva. Rio de Janeiro: UFRJ/LaPEADE, 2007.

SMEHA, Luciane Najar; FERREIRA, lolete de Vilieger. Prazer e sofrimento docente nos processos de inclusão escolar. **Revista Educação Especial**, Santa Maria, RS, v. 1, n. 31, p. 37-48, 2008. DOI 10.5902/1984686X. Disponível em: https://periodicos. ufsm.br/educacaoespecial/article/view/8/20. Acesso em: 12 mar. 2020.

VIGOTSKY, Lev. **Obras escogidas V**: fundamentos de defectologia. Madrid: Visor, 1997.