

Inclusive Education and Vocational and Technological Training: interfaces and challenges at the Federal Institute of Rondônia/Brazil

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Abstract

This article reflects on the theme of Inclusive Education, an educational paradigm that refers to a restructuring of culture, practice and policies experienced in schools, so that they meet the diversity of students. It aims to contribute to the reflection on the challenges of educational inclusion of students in the IFRO – Porto Velho Calama Campus and communicate the process of development and application of the educational product: Initial Formation Course. The method used was the Educational Action Research, with the acquisition and analysis of data based on educational documents that guide the inclusion of autistic students prepared in IFRO, legislation and national guidelines concerning the subject. Among the results achieved, it is reported that IFRO has developed actions aimed at improving the conditions of access, permanence and success of students with disabilities, including students with ASD. However, there is a threat scenario to this inclusive process, caused by neoliberal pedagogies that put at risk the continuity of the offer of Integrated Secondary Education, and intend to remodel the curricula, configuring a teaching by competences, which aims to attend to productivist interests and logics with regard to professional practice. In the case of the education of the person with ASD, these pedagogies tend to disregard the characteristic variability of the disorder, demand unachievable standards and intensify exclusion.

Keywords: Educational Inclusion; Autistic Spectrum Disorder; Initial Training Course.

1. Introduction

This article results from the project “The Inclusive Pedagogical Practice in the Teaching-Learning Process of Students with Autism Spectrum Disorder – ASD”, developed within the scope of the Master’s Program in the national network in Professional and Technological Education (ProfEPT - Brazil), and has as a general objective to contribute to the reflection on the challenges of educational inclusion of students in IFRO – Porto Velho Calama *Campus*. Additionally, the study aims to communicate the process of development and application of the educational product called “Initial Training Course in Inclusion Agent for Students with Autism Spectrum Disorder”.

This research is, therefore, in the wake of Inclusive Education, an educational paradigm “that combines equality and difference as inseparable values, and that advances in relation to the idea of formal equity by contextualizing the historical circumstances of the production of exclusion inside and outside the school” [1].

Currently, Brazil has several legal provisions that aim to promote social inclusion and education of Persons with Disabilities (PwD), such as the National Plan for the Rights of Persons with Disabilities [2], Law 12.

711, of August 29, 2012 [3], which provides for the admission of PwD, blacks and indigenous peoples at federal universities and at federal secondary level technical education institutions, and Law 12. 764, of December 27, 2012 [4], which instituted the national policy for the protection of the rights of Persons with Autistic Spectrum Disorder.

Advances in national legislation are a relevant achievement of social movements of people with disabilities, movements that gained renewed vitality with the process of redemocratization in Brazil, starting in 1981. After more than 20 years of civil-military dictatorship, marked by censorship , torture and setbacks in human rights, the Federal Constitution of 1988 [5] brought as one of its fundamental objectives, in its article 3: “to promote the good of all, without prejudice of origin, race, sex, color, age and any other forms of discrimination” (art.3, item IV), and established, in article 205, education as a subjective universal right, guaranteeing the full development of the person, the exercise of citizenship and qualification for work. The magna charter also established, in its article 206, item I, the “equality of conditions of access and permanence in school” as one of the principles for teaching, enshrining as a duty of the State to offer specialized educational care, preferably in the regular network education.

Despite these advances, the social inclusion of PwD, among which those with Autism Spectrum Disorder (ASD) is still a challenge, because in practice, many of these people do not have access to the world of work, or at most, receive the opportunity of working on temporary contracts of approximately three months, a temporality that does not allow for the consolidation of professional skills or the economic insertion of these individuals.

In the educational field, the situation is also one of veiled exclusion: students with disabilities get a place, are enrolled and formally inserted in the regular education network, however, this occurs without educational institutions being effectively prepared to promote the educational inclusion of these students and ensure their learning rights. Several factors influence this picture of school exclusion, including the lack of adequate infrastructure, understanding of diversity and the presence of prejudice, and insufficient pedagogical training to work with the specific educational needs of these students. One can also add the fact of the overload of teaching work. It is common for teachers to receive low salaries and have to work in two different establishments to earn a living, leaving no time for specialized pedagogical planning and continuing education, necessary for the improvement of pedagogical practices.

In this study, we seek to point out some of the challenges concerning the inclusion of autistic students and present the experience of developing the educational product called “Initial Training Course in Inclusion Agent for Students with Autistic Spectrum Disorder”, which aimed to contribute to inclusion education of autistic students, through training offered to teachers, caregivers, pedagogy students, therapists and family members of children and adolescents with ASD.

2. Materials and Methods

It is qualitative research, developed based on the educational action research method, an investigative modality that aims to contribute to the improvement of the educational process, through intervention in real situations, where practical and knowledge objectives are related to the intention of solving or, at the very least, clarify the problems found in the investigated empirical approach. According to Tripp, “Educational

action research is mainly a strategy for the development of teachers and researchers, so that they can use their research to improve their teaching and, as a result, the learning of their students” [6].

With regard to objectives, the research on screen is classified as explanatory research, and in terms of nature, as applied research.

The documental corpus of the study consisted of educational documents guiding the inclusion of autistic students prepared at the Federal Institute of Rondônia (IFRO), as well as national legislation and guidelines concerning the subject. Among the analyzed sources, the IFRO Institutional Development Plan, the Guidance Manual prepared by the Support Center for People with Specific Needs – SCPSN¹ of the Porto Velho Calama *Campus* and the National Policy on Special Education from the perspective of inclusive education, stand out. Ministry of Education of Brazil.

The analyzes were carried out in a historical perspective, based on literature that dialogues with the problem studied [7-8-9-10].

Based on the analyses, it was possible to plan the educational product “Initial Training Course for an Educational Inclusion Agent for Students with Autism Spectrum Disorder”, which had a workload of 160 hours and had the support of the pedagogical team of the Parents and Friends of the Autist from Rondônia – PFA², and of professors and researchers from the Historical and Literary Studies Nucleus (NEHLI/IFRO), which has a line of research in the area of inclusive education and human rights.

With regard to product development, a prototype of the Initial Training Course Pedagogical Project was first developed, which was presented to the Coordination of Initial and Continuing Training Courses at IFRO - Porto Velho Calama *Campus*, which requested adjustments to the nomenclature of the course and made available the instruments for planning the subjects.

Once the requests were met, a new version of the prototype was submitted to the Coordination of Initial and Continuing Training Courses at IFRO – Porto Velho Calama *Campus*, which approved and forwarded it to the General Directorate of the *Campus*, for the issuance of an administrative ordinance and registration with to the School Council of the unit (a consultative and deliberative body composed of representatives of teachers, technicians, students and graduates and chaired by the *Campus* General Director).

The course began after the publication of the decree approving the pedagogical project by the General Directorate of the Porto Velho Calama *Campus* [11], and sought to contribute to the training of education professionals, pedagogy students, caregivers, therapists and family members of people with ASD aiming at the inclusion of students with ASD in the regular school system. It lasted 160 hours, distributed around three training axes: Characterization of TEA and Legislation, School Inclusion and Classroom Practice with students with ASD, as shown in Figure 1:

¹ NAPNE in Portuguese Language.

² AMA in Portuguese Language.

Figure 1: Curriculum organization of the Inclusion Agent course for students with Autistic Spectrum Disorder – 2021.

Module	Component Module	Credit Hours
Module I Characterization of the ASD and Legislation	Atmosphere in EaD	--
	Introduction to ASD	12
	ASD Biomedical Approach	12
	Behavioral Approach of ASD	12
	Rights of Persons with Disabilities	12
Module II School inclusion	Inclusive education	12
	School welcoming	12
	Adaptations/Adjustments	20
Module III Classroom Practice with Students with ASD	Individualized Educational Planning - IEP	12
	Assistive Technologies	12
	Alternative Communication Systems	16
	Teaching Strategies	28
	Total	160

Source: Survey data (2021).

40 vacancies were offered, all free, 10 for the community inside the *Campus* and 30 for the external community. Due to the COVID-19 pandemic and the suspension of on-site activities at IFRO, the course was taught under the Distance Education regime through the institution's own virtual learning environment. The contents of the subjects were made available asynchronously, so that course participants could access it in their own timeframes, but each subject had at least one synchronous meeting, carried out through the Google Meets tool, in order to guide the activities, clarify the subjects covered in synchronous classes and share experiences.

After the course was offered, electronic forms were distributed so that students and teachers could evaluate it and propose suggestions for improvement. Based on the suggestions presented, the researchers prepared a new version of the document and presented it to the Coordination of ICE Courses of the *Campus*, for validation and inclusion of the product in the catalog of Initial and Continuing Education courses at the unit.

3. Results and Discussion

3.1 Brief notes on the development of Special Education in Brazil

First, it should be noted that Special Education is the teaching modality that permeates all levels, stages and modalities, provides specialized educational care, provides resources and services and guides on their use in the teaching and learning process in common teaching classes regular [1]. Currently, this type of teaching has guidelines that guide it to be carried out from the perspective of Inclusive Education.

Inclusive Education, in turn, refers to a restructuring of culture, practice and policies experienced in schools, so that they meet the diversity of students. It is a humanistic, democratic approach, which perceives the subject and its singularities, and from the social inclusion of everyone, it aims at personal satisfaction and collective growth [12]. Inclusive Education is, therefore, more comprehensive than Special Education and can include it.

Such educational perspectives are strategies for overcoming exclusion and social marginalization, situations in which Brazil has a long trajectory. It is worth noting that, dialectically, education policies and practices have contributed to this scenario and, likewise, reflect the contradictions, interests and challenges that characterize society and broader institutional arrangements.

In this sense, it should be noted that the first schools administered by the Portuguese Crown tried to imprint a dual character to Brazilian education, which persists to this day: the children of the elites had been given a propaedeutic, humanistic education, aimed at training those who would exercise political and economic command functions; and the children of the poor were offered a technical education, centered on operational aspects and that did not provide subsidies for critical thinking and access to general culture, thus favoring the reproduction of the established social order [10]. To enslaved Africans and their descendants, not even this was given to them before the 20th century. It can be said, therefore, that the school institution was constituted in Brazil as a privilege of a group, operating in the symbolic field as an element of social distinction and exclusion from the set of social rights and benefits.

If skin color worked as a stigma in Brazil, the same effect can be seen in relation to physical and intellectual disabilities. People with disabilities were considered incapable, unfit for school life and for economic and social life, being relegated to their own fate or inserted in philanthropic networks, often proselytizing – even when coordinated by public agents. Thus, the first institutions oriented to the education of people with disabilities would only be installed later in Brazil, functioning as segregating and totalizing spaces [13], often aimed at professionalization.

According to Mantoan [14], the historical development of special education in Brazil began in the 19th century, inspired by North American and European experiences. These first initiatives developed in Brazil were, however, isolated and disconnected experiences from public education policies, so that it was only in the 1960s that this teaching modality was officially instituted.

With the installation of special education institutions, the aim was to normalize people with disabilities, as well as to contribute to reducing their economic dependence. Such educational proposals did not address, however, the problem of prejudice, nor did they provide a critical basis that would provide opportunities for understanding the class structure of Brazilian society and how it intensifies inequalities.

Special Education in Brazil was structured, therefore, as a specialized educational service, replacing ordinary education and offered in specialized institutions, special schools and/or special classes, based on the concept of normality/abnormality.

In many of these institutions, medical reports and psychometric tests determined the forms of school care, offering students with disabilities an impoverishing curriculum and an education centered on stereotypes, which further reinforced their limitations. The parameter pursued was that of normalization, of the individual's unilateral adaptation to school and society, thus demonstrating intolerance towards differences.

Even in the 20th century, with the universalization of basic education, the paradox of inclusion/exclusion is still evident, as education systems universalize access, but continue to exclude individuals and groups considered outside the established standards [1]. This exclusion is mainly due to the non-compliance with specific educational needs, which causes these students to accumulate knowledge gaps, mistakes and frustrations that end up resulting in school dropout or failure [9]. Thus, a pseudo-inclusion is experienced, which authorizes access and socialization, but does not eliminate the barriers that hinder or impede learning, nor does it guarantee respectful coexistence.

There are several mechanisms and processes of hierarchization that operate the regulation and reproduction of inequalities, and the school institution is just one of these elements. Its performance, however, is of special relevance in the context discussed here, since it explains the normative processes of distinction of students due to intellectual, physical, cultural, social, linguistic, economic characteristics, among others. Having made these general considerations, we move on to specific considerations about the challenges of including students with ASD in the empirical cutout selected for the study, namely, the Porto Velho Calama *Campus* of the Federal Institute of Education, Science and Technology of Rondônia.

3.2 Challenges of Inclusion of Autistic Students in IFRO – Porto Velho Calama Campus

The IFRO - Porto Velho Calama *Campus* develops policies that aim to ensure the access, permanence and development of students with disabilities, including those with ASD, as for all purposes of Law 12. 764, of December 27, 2012, autistic people were considered people with disabilities. In the list of actions listed in this research, the Policy of Access, Permanence and Success of the Federal Institute of Education, Science and Technology of Rondônia [15] stands out, through which financial resources are transferred to students to assist in treatments health and purchase of orthotics and prostheses, housing assistance, food, transport, among others. In addition to the transfer of resources, the policy offers biopsychosocial support to students in a situation of socioeconomic vulnerability, to those with disabilities and specific educational needs, through nursing, psychology, social assistance and pedagogical support services.

Another important factor is the investment that the institution has made in in-service teacher training, with different qualifications, some of which are specific for pedagogical work with autistic students.

Through SCPSN, teachers have been receiving guidance for the development of pedagogical adaptations to favor the teaching-learning process of autistic students, and the institution has been advancing in the planning of inclusive strategies. Furthermore, SCPSN has become an important debate forum for teachers and technicians engaged in promoting inclusive education.

From an architectural point of view, significant investments were also noted to reduce the physical barriers of the environment, such as the installation of an elevator, the installation of tactile flooring and the construction of accessible sidewalks.

Based on the above, successful actions and a promising path are perceived, however, institutions are not autonomous cuts of a social, political, cultural, economic and educational reality [16], and are subject to external pressures that challenge accommodation of conflicting interests within it. In this sense, among the main challenges faced by the institution with regard to the educational inclusion of autistic students are the advancement of neoliberal pedagogies on Professional and Technological Education and the threats to integrated secondary education.

The advance of liberal ideas on Professional and Technological Education – PTE is not a recent phenomenon, as in the Vargas Era (1930-1945), there was a clear direction of market demands in professional training, demands that were accepted by the federal government through the called Reforma Capanema, which through a set of laws and decrees structured industrial education, reformed commercial education and created the National Service for Industrial Learning (NSIL³), as well as effecting changes in secondary education and in commercial and agricultural education. This subsumption of public education to liberal and neoliberal economic interests is evident when we analyze Decree No. 4073 of January 30, 1942 [17], which determined that industrial education should meet the “interests of companies, nurturing them, according to their growing and changing needs, for sufficient and adequate manpower” [17]. The text also established, in its art. 4, that industrial education has the purpose of: “Training professionals able to exercise trades and techniques in industrial activities” and also “give young and adult workers in the industry, not graduated or qualified, a professional qualification that increases their efficiency and productivity” [17].

Three things stand out in the reading of the excerpts highlighted above: an education aimed at the interests of companies (and not the broader social interests), which must train a flexible, adaptable workforce to meet the demands of the market (instead of training for the exercise of citizenship and the critical understanding of the social relations of production), and an education centered on mere technical qualification for work – this clearly aimed at poor young people and adults, who have not had the opportunity to receive formal education. For these, instrumental qualification is offered, so that they can increase their productivity and efficiency, without providing them with the resources to overcome their subordinate and inferior social condition in the social hierarchy.

Furthermore, we have a servant education of capital, and this servile character is required to maintain the class structure, maintenance that passes through education, since education is strategic to any power project, and therefore it is controlled in a way that function according to these mechanisms, in order to meet the ideals of this social configuration [8].

Despite sophisticated pedagogical theories, such as elaborated by Paulo Freire [18-19], who pointed to the nefarious character of this educational model and presented a genuinely liberating proposal, Brazil went through the 20th century without structural changes in its educational project, on the contrary, defined mechanisms that came to reinforce its subservience to the market, such as Decree 5.154, of July 23, 2004 [20].

A proposal to overcome this model was presented in 2008, by Law 11,892/2008, which created the Federal Institutes of Education, Science and Technology, as it presented, in its Article 7, that one of the objectives of these Institutes should be that of I - to provide high school technical professional education, primarily in the form of integrated courses, for those who graduate from elementary school and for the public of youth and adult education. [21]. In this device, there is no break with the previous model, but a door that opens to a more democratic, ethical and fair horizon, as it provides opportunities for the poorest strata of the Brazilian population - who often feel pressured to take a professional training course to start working soon and earn income, an integrated high school level training. In other words, it encompasses both the propaedeutic core and technical and technological knowledge.

³ SENAI in Language Portuguese.

Integrated High School is the great differential of Professional and Technological Education developed in Brazil in the wake of the 21st century. It occurs through a single enrollment and a curricular organization that ensures a broad, comprehensive and, therefore, humanistic, general and technical education, without supremacy of one over the other, thus ensuring the necessary conditions for a effective participation in society in its social, political, cultural and economic dimensions, in which the world of work is considered, but not restricted to it. [7].

Underlying Integrated High School is the understanding that human development cannot be limited to the pursuit of socioeconomic development and its insertion in productive processes, but must enable the appropriation of socially constructed knowledge and the understanding of social and productive relations, articulating science, technology and culture. It is a path for the inclusion of everyone in the collection of human culture, a universal heritage of peoples in their different times and geographies, and it is based on the appropriation of this general culture that it promotes discussions about the world of work and its historical configurations and technical and technological transformations. Its function, therefore, must go beyond training for the “labour market” or building skills and competencies that are adequate to the interests of this market, but rather to train people in its multiple dimensions, preparing them for the exercise of citizenship.

Integrated Secondary Education is, however, threatened by a Common National Curriculum Base - CNCB⁴ that did not establish the minimum knowledge to be worked with students, and under the argument of overcoming disciplinary barriers and an integrated knowledge, excluded from the curriculum from high school fundamental disciplines, such as history, dispersing knowledge. Another characteristic of CNCB and the New High School is the opportunity for students to build their own training itineraries, selecting what they want to study based on their focus of interest. It is, in fact, a fallacious opportunity, since not all options will be available to students in schools, leading, therefore, to fragmented and even incoherent itineraries, which bypass contributing to an integral, humanized and truly technological.

There is pressure on Integrated Secondary Education to redefine its curricula, adapting them to the assumptions of neoliberal pedagogies, such as the competency-based curriculum and active methodologies - which apply very well to pedagogical contexts in countries such as Finland, Singapore or Israel, which they have other economic, educational and social realities that are diametrically opposed to what is happening in the corners of Brazil.

It is estimated that if the Integrated Secondary Education policy goes back, or if it gives in to the pressures of redefining its pedagogical practices for a curriculum centered on the construction of competences of interest to the productive logic of the capitalist mode of production, there will inevitably be an increase in social exclusion, from school failure and the evasion of students who do not adapt to this logic. Students with disabilities, who have physical or intellectual limitations, are even more vulnerable to this exclusion process, as they learn and produce in different ways, at their own pace, and in the case of autistic students, they are not always able to regulate their behavior to this type of social expectation.

⁴ BNCC in Portuguese Language.

4. Conclusion

The IFRO - Porto Velho Calama *Campus* has developed relevant actions aimed at improving the conditions of access, permanence and success of students with disabilities, including students with ASD. The school unit has advanced in pedagogical support to these students and in teacher training for inclusive pedagogical work. However, the institution, as well as the network of which it is a part, is threatened by the advance of neoliberal pedagogies that put at risk the continuity of the offer of Integrated Secondary Education, and intend to remodel the curricula, configuring a teaching based on competences, which aims to meet productivist interests and logics with regard to professional practice. Such interests and logics are incompatible with the social function of Integrated Secondary Education, proving to be harmful to the inclusion of people with disabilities, since they disregard their singularities and demand a pattern of behavior that is often unattainable for people with disabilities.

The imposition of a competency-based curriculum can increase evasion and school failure, increasing the social exclusion of people with disabilities, moreover, it can limit access to knowledge of general culture, as it directs the contents towards limited objectives.

In order to collaborate with the educational inclusion of autistic students and with the reflection on the challenges faced by the IFRO – Porto Velho Calama *Campus* in this matter, the Initial Training course in Inclusion Agent for Students with Autistic Spectrum Disorder was offered, the which had a workload of 160 hours and had the participation of educators, therapists, pedagogy students and families of autistic people. Out of a total of 36 enrolled, 32 completed the course successfully.

5. Acknowledgments

We would like to thank the Dean of Research, Innovation and Postgraduate Studies at the Federal Institute of Education, Science and Technology of Rondônia, for the financial support for the study.

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