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INTERFACES BETWEEN RURAL EDUCATION AND INCLUSION: HIGHLIGHTS OF TEACHER TRAINING IN THE REALITY OF THE PARANÁ COAST

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Abstract: In this research, we analyze the contribution of continuing teacher training to the implementation of inclusive special education in basic education and its interfaces with Rural Education, understood as an educational concept linked to the ways of life, identities, and sociocultural dynamics present in rural communities. The study recognizes that inclusive practices are only consolidated when they consider the territorial and community specificities of rural areas, especially in the municipality of Paranaguá, on the coast of Paraná, where urban and rural schools coexist, each marked by distinct challenges. In rural areas, there is an intensification of obstacles resulting from social, structural, and geographical conditions, such as multi-grade classes, long commutes, limited infrastructure, unstable connectivity, and a reduced number of specialized professionals, a scenario that requires public policies and training actions sensitive to the particularities of these territories. The research, which is bibliographic, documentary, and exploratory in nature, articulates theoretical foundations, normative frameworks, and observations based on the authors' experience in the municipal public school system on the coast of Paraná. The results show that effective inclusion requires ongoing, collaborative, and situated training processes, linked to Specialized Educational Services (AEE), Universal Design for Learning (UDL), and formative assessment, which guide accessible planning and pedagogical decisions. It was also found that teachers attribute a decisive role to continuing education in the transformation of pedagogical practices, valuing proposals that combine theory and practice and encourage joint work between the regular classroom and AEE. It is concluded that teacher training, specifically for

the field, when linked to local realities and supported by adequate institutional conditions, strengthens inclusive practices and contributes to the construction of an accessible and equitable curriculum, reaffirming the school as a space for citizenship, social justice, and respect for diversity.

Keywords: Rural education. Continuing education. Educational policies. Inclusion.

INTRODUCTORY ASPECTS

The defense of the right to education for all, guaranteed by the Federal Constitution of 1988, inaugurated a new paradigm in Brazilian educational history, promoting reforms and public policies that profoundly transformed the role of special education. From this milestone, a concept of inclusive education was consolidated as a guiding principle of basic education, based on the idea that diversity is not an obstacle, but rather the starting point for pedagogical planning and curriculum management. In this scenario, inclusion came to be understood as the process of creating conditions that ensure access, permanence, participation, and learning for all students in mainstream education, which implies the reorganization of curricula and the strengthening of specialized services that remove barriers historically present in everyday school life.

This paradigm shift required a rethinking of pedagogical practices and the institutional culture of schools. At the didactic level, it became essential to plan ahead for differences in engagement, interest, and learning pace, promoting collaborative strategies between classroom teachers and Specialized Educational Services (AEE) professionals. The literature and regulations analyzed in this study emphasize that for-

mative assessment should replace classificatory models, guiding pedagogical decisions based on evidence and continuous monitoring of student progress. In the ethical and political field, inclusion demands a dialogical, reflective teaching approach committed to overcoming social and educational inequalities.

In this context, continuing teacher education plays a strategic and structural role. More than simply acquiring techniques, it represents a process of professional development that integrates theory and practice, stimulating critical thinking and collaborative work. Initial training, in turn, must combine solid theoretical foundations with concrete pedagogical experiences, while continuing education needs to be consolidated as a permanent process, situated in the school context and committed to transforming practice. In municipalities such as Paranaguá, located on the coast of Paraná, these dimensions take on even greater relevance.

The municipal network in Paranaguá faces challenges that combine structural limitations, large class sizes, and a lack of specialized support, which requires a training policy that is articulated to the real working conditions of teachers and the specificities of the territory. Understanding these specificities implies recognizing the historical, social, and geographical configuration of the municipality itself, as its internal characteristics directly shape the conditions of educational provision and the demands placed on inclusive practices.

Paranaguá, a coastal municipality in Paraná and the oldest city in the state, has a history dating back to the 16th century and a municipal organization that was consolidated in the mid-17th century. Traditio-

nal riverside and caiçara communities have formed in this coastal territory, maintaining deep sociocultural ties with Paranaguá Bay and the region's islands and estuaries. Artisanal fishing is a source of subsistence and an essential economic activity for these populations, who preserve ways of life marked by a direct relationship with the natural environment. In addition, the Port of Paranaguá is one of Brazil's main public ports and plays a significant role in the state and national economy, influencing urban dynamics, land occupation, and the living conditions of the local population. This combination of historical heritage, port presence, traditional communities, and fishing activities affects the educational demands of the municipality and the conditions of access and retention of students from urban, rural, and island communities.

This bibliographic and documentary research sought to understand the contributions of continuing education to the implementation of inclusive special education in basic education in Paranaguá, also considering the particularities of rural schools.

In rural communities and rural schools in Paranaguá, the challenges become even more complex. According to Arroyo (2004) and Caldart (2012), rural education should be understood not as a parallel model, but as an educational concept focused on the identity, culture, and life of rural populations.

In these territories, inclusion requires solutions adapted to the local reality, which take into account long distances, multi-grade teaching, and connectivity limitations. Thus, training policies that respect these specificities are fundamental to ensure that students with disabilities, autism spectrum disorders, or high abilities have their right to learning and full participation guaranteed.

Theoretical analysis indicates three central training axes that structure inclusive work: Specialized Educational Services (AEE), Universal Design for Learning (UDL), and formative assessment. AEE plays a pedagogical support role, responsible for identifying and organizing accessibility resources. UDL proposes accessible planning from the beginning of the teaching process, with multiple forms of representation, expression, and engagement; and formative assessment allows for monitoring student progress, prioritizing potential rather than error. When incorporated into continuing education, these three pillars promote shared responsibility between classroom teachers and AEE professionals, strengthening the culture of inclusion in schools.

The choice of a bibliographic and exploratory methodology had advantages and limitations. On the one hand, it enabled a broad dialogue between different theoretical currents, authors, and public policies, allowing for the construction of a critical synthesis on training and inclusion. On the other hand, the absence of direct observations and the exclusive focus on secondary sources imposed restrictions on empirical analysis. In addition, the research faced challenges in consolidating updated data on the local reality and in the conceptual articulation between the various references used. These limitations, however, do not compromise the consistency of the study. On the contrary, they reveal possibilities for future investigations, especially those that carry out field observations and follow, longitudinally, the development of inclusive practices in schools.

In terms of practical contribution, the study proposes the integration of AEE, DUA, and formative assessment as the basis

for a continuing education model supported by school management and municipal policies. This proposal aims to transform training into an institutionalized process that promotes not only technical updating but also critical and ethical engagement by teachers. In the context of Paranaguá, where urban and rural networks coexist under unequal conditions, this approach plays a decisive role in ensuring equity and quality in basic education.

Finally, this research is based on the conviction that inclusion is not a parallel action, but rather the very quality of mainstream education when it is organized to embrace differences as the norm. Continuing, collaborative, and evidence-based training is the most solid path to transforming legal principles into concrete practices and effective pedagogical routines. The commitment to equity requires that coastal municipalities, such as Paranaguá, institutionalize training policies that ensure time, resources, monitoring, and teacher appreciation, so that the right to education for all, especially those who have historically been excluded, is truly guaranteed in everyday school life.

This study is therefore justified in critically examining these limitations and proposing criteria for training processes that focus on the planning, evaluation, and organization of pedagogical work in a contextualized manner. It seeks to articulate the principles of Specialized Educational Services (AEE) and Universal Design for Learning (UDL) with the specificities of Rural Education, in order to strengthen inclusive practices. The research contributes socially to the construction of a more just and accessible school, and academically to the systematization of references that guide teacher training in diverse contexts.

The study also assesses the degree of alignment between the content and methodologies of training activities and the real demands of teaching work at different stages of basic education and in different territorial contexts (urban and rural). From this perspective, it is considered essential to maintain a focus on the need for curricular adaptation, the management of barriers to learning, and the guarantee of pedagogical and communicational accessibility. When implemented in service, these aspects should combine theoretical study, classroom observation, didactic experimentation, and evidence-based reflection, favoring the institutionalization of inclusive practices and reducing the gap between legal requirements and classroom routine.

Finally, we seek to discuss the limits and scope of different training arrangements, such as specific actions, workshops, study groups, tutoring, and communities of practice, with attention to organizational costs and the sustainability of changes. The work also aims to produce subsidies for decision-making in education networks, both at the school and management levels, through operational recommendations and a minimum set of monitoring indicators that allow for monitoring the internal coherence of training actions, their implementation in everyday school life, and the associated educational results, taking as a reference the principle of equity and the right to quality education for all. In methodological terms, the objective is based on the integration of bibliographic and documentary review and exploratory surveys with teachers, articulating conceptual and normative analysis with empirical data on training needs, recurring obstacles, and potential for improvement. At the analytical level, we seek to establish

links between policy, training, and practice, recognizing that the effectiveness of inclusive education depends simultaneously on professional teaching competence, institutional support, and evidence-based pedagogical management.

The bibliographic and documentary corpus was based on criteria of thematic relevance, academic relevance, and authority of sources. Priority was given to publications with recognized circulation and official normative character, favoring recent works between 2003 and 2025, without excluding the founding classics due to their conceptual relevance. Among the main authors and theoretical references adopted are Freire, Pimenta, Gatti, Mantoan, Arroyo, Saviani, and Libâneo, who offer pedagogical, political, and didactic foundations on teacher professional development and inclusion. On the normative axis, documents such as the 1988 Federal Constitution, the Law of Guidelines and Bases for National Education (1996), the Salamanca Declaration (1994), and the National Policy on Special Education from the Perspective of Inclusive Education (2008), in addition to the CNE guidelines on teacher training and MEC/SEESP guidelines regarding AEE. The bibliographic searches articulated descriptors related to the central analytical axes of continuing education, inclusive education, AEE, DUA, formative assessment, and rural education, and the selected sources were evaluated for practical applicability and consistency with the real conditions of teaching work, excluding texts that were merely opinionated or without theoretical support.

To this end, we organized the systematization of the studies and the resulting written elaboration, bringing, in each item

of this text, aspects of the theoretical approaches regarding: Inclusive education and its foundations, relating them to pedagogical practices and teacher training; Next, we address Rural Education as a collective construction, arising from the demands of social movements, whose formative identity has historically constituted it as a humanistic and differentiated concept. We also emphasize the continuing education of teachers, specifically in rural schools, based on their challenges and potential in the context of inclusion. We deepen the research based on current pedagogical strategies, aspects of assessment, and learning strategies such as Universal Design for Learning (UDL). Furthermore, we address the importance of school management in collaborative practices that promote inclusion. Finally, at the end of this study, we will present the possible conclusions, bearing in mind that education, understood as a dynamic and contradictory historical process, often undergoes changes. Therefore, our conclusions are permeated by an inconclusive and challenging reality. In this movement, we move on to the first focus.

INCLUSIVE EDUCATION AND TEACHER TRAINING: FUNDAMENTALS AND PEDAGOGICAL PRACTICES

Inclusive education has established itself as a structuring principle of contemporary schools, affirming that diversity is a pedagogical value and not an obstacle to learning. In Brazil, its consolidation is based on legal and regulatory frameworks such as the Federal Constitution of 1988, the Law of Guidelines and Bases for National Education (Law No. 9,394/1996), the Salamanca

Declaration (1994), and the National Policy on Special Education from the Perspective of Inclusive Education (2008). These documents define the commitment of the State and educational institutions to access, retention, participation, and learning for all students in mainstream education. In this scenario, authors such as Mantoan (2015) and Sasaki (2010) argue that inclusion implies reorganizing teaching, promoting collaborative planning, and ensuring formative assessments that recognize the pace and potential of each student. Teaching practice, in turn, requires an ethical, dialogical, and critical stance, committed to overcoming inequalities, as stated by Freire (1996), who emphasizes that teaching is an act of social responsibility and humanity building.

Internationally, the 1994 Salamanca Declaration and the 2008 International Convention on the Rights of Persons with Disabilities are fundamental milestones that redefine the perspective on inclusion and reinforce the need to understand diversity as a resource rather than an obstacle. According to Silveira, Silva, and Mafra (2019), these documents establish parameters for building more equitable educational systems in which all students can learn together, with respect for differences.

The implementation of inclusion involves coordination between the regular classroom and Specialized Educational Services (AEE), understood as a complementary service and not a substitute for regular education, in accordance with the guidelines of the National Policy on Special Education from the Perspective of Inclusive Education. AEE aims to identify, develop, and organize pedagogical and accessibility resources that eliminate barriers to the full participation of students with disabilities. Its effectiveness

depends on collaborative work between regular classroom teachers and AEE teachers to ensure continuity and consistency in pedagogical practices.

Universal Design for Learning (UDL) proposes an approach that favors the planning of diversified strategies from the beginning of the educational process, where all students benefit, not just those with specific needs. UDL advocates offering multiple forms of content representation, learning expression, and student engagement. This approach broadens curriculum accessibility and avoids stigmatizing students by promoting inclusion as a principle of teaching rather than a subsequent adaptation. We will discuss UDL in more detail later.

In this context, teacher training is central to the implementation of inclusive practices, as it enables teachers to understand differences, plan diversified strategies, and develop teaching practices that are sensitive to students' needs. In initial training, it is important to integrate theory and practice, ensuring that future educators develop not only technical mastery but also a critical understanding of the cultural and social dimensions of teaching.

In turn, continuing education should be ongoing, contextualized, and collaborative, allowing teachers to reflect on their practice, reframe knowledge, and develop new methodologies. Gatti (2019) emphasizes that teacher training is most effective when linked to the real conditions of school work, with institutionalized time for study and pedagogical monitoring. However, in the reality of Brazilian public school systems, especially in medium-sized municipalities and rural areas, training activities are still fragmented, often restricted to occasional meetings, without continuity and without

connection to the daily challenges of the school. This lack of coordination reduces the transformative potential of training and can lead to demotivation among professionals, compromising the effectiveness of inclusion.

Rethinking teacher training therefore implies overcoming the logic of sporadic courses and adopting training processes that favor professional development based on practice, with institutional support, mentoring, and spaces for dialogue among peers. As highlighted in the Alana Institute report (2024, p. 9), "continuing education is the privileged space for the construction of the reflective teacher, researcher of their own action, and protagonist of school transformation." This understanding points to the need to build training trajectories that combine theoretical study, didactic experimentation, and critical analysis of practice, articulated with the real demands of the school. When training is conceived in this way, it becomes an instrument for strengthening teacher autonomy and improving the teaching-learning process, promoting a more democratic, equitable, and inclusive school environment. Thus, inclusive education and teacher training are dimensions that go hand in hand in the same commitment: to guarantee everyone's right to learning and transform schools into truly accessible and humane spaces.

Understanding inclusion in relation to teacher training, especially in rural schools, as we set out to study, required, in addition to the aspects highlighted above, a deeper understanding of the principles of rural education, as highlighted below.

RURAL EDUCATION: CONCEPT AND FORMATIVE IDENTITY

Rural Education is the result of the historical and social struggles of peasant communities to build a school that represents their identity, culture, and way of life. Unlike the old concept of “rural education,” which was welfare-oriented and urban-centered, Rural Education was born as an emancipatory political-pedagogical project that recognizes rural workers as subjects of rights and knowledge production. For decades, the function of rural schools was to curb illiteracy and prepare workers for industrialization, disregarding the sociocultural knowledge and practices of peasant communities. This model, as *Caldart et al.* (2012) assert, treated the countryside as a place of backwardness, rather than a place of culture and resistance.

In contrast, Rural Education emerges as a concept of education linked to social formation and the concrete living conditions of rural peoples. It is a contextualized education that considers work, the rhythms of nature, cultural practices, and the diversity of knowledge as constitutive elements of the curriculum. *Caldart* (2012) explains that “Rural Education does not aim to teach rural people to be city dwellers, but to strengthen the countryside as a space for life, work, and culture.” This view is in line with *Arroyo* (2012), for whom Rural Education arose from the resistance movement of historically silenced individuals, who came to recognize themselves as producers of culture and knowledge.

The strengthening of this movement was driven by organizations such as the Landless Rural Workers Movement (MST), the

Pastoral Land Commission (CPT), and the Federation of Family Farm Workers (FE-TRAF), which demanded specific public policies for the countryside and resisted the closure of rural schools. The First National Conference for Rural Education, in 1998, consolidated the concept of Rural Education as a project for comprehensive human development, articulating work, culture, and social struggle as the foundations of the educational process. Since then, rural schools have come to be understood as spaces of resistance, memory, and emancipation, whose function is to promote the intellectual and political autonomy of individuals and preserve peasant identity. One of the proposals that embodies the concept of rural education is the pedagogy of alternation.

In this context, the pedagogy of alternation represents one of the most significant experiences. Alternating periods of study at school and experience in the territory, it integrates theory and practice, connects scientific knowledge to popular knowledge, and strengthens the link between school and community. This methodology, inspired by French models and reworked by Brazilian social movements, is a powerful strategy for strengthening the role of families and promoting the appreciation of local practices.

However, rural education faces persistent challenges. The closure of rural schools is one of the most serious threats, resulting from administrative centralization and the lack of public investment. According to *Molina* (2012), between 2010 and 2018, more than 4,000 rural schools were closed in Brazil, forcing children and adolescents to travel long distances, which breaks community ties and weakens local identity. This reality is aggravated by the lack of adequate school transportation, poor infrastructure,

and the absence of accessible digital technologies, factors that accentuate historical inequalities and limit the right to quality social education.

One of the central pillars for addressing these challenges is the training and valorization of rural teachers. Fernandes (2012) argues that educating in rural areas requires professionals committed to social transformation and to strengthening the critical awareness of those who make their living from working the land. However, most of the teachers who work in these schools come from cities and do not have specific training to understand the rural reality.

In addition to training requirements, rural areas require integrated and intercultural curricula that recognize popular and scientific knowledge as complementary. Souza (2012) argues that rural schools should be a “space for dialogue between different types of knowledge,” linking community experiences with systematic knowledge in order to educate citizens who are critical and aware of their historical role. Thus, the countryside is understood not only as a geographical location, but as an educational territory in which meanings, values, and ways of life are produced.

When viewed from the perspective of inclusive education, rural education reveals even more complex challenges. Schools located in rural areas, settlements, and traditional communities face pedagogical, structural, and cultural barriers that extend beyond the classroom. In these locations, it is common to find multi-grade classes, long distances traveled by students, and a lack of professionals specialized in Special Education. These factors make inclusion more difficult to achieve, requiring intersectoral

public policies involving education, health, social assistance, and school transportation.

The principles of Specialized Educational Services (AEE) and Universal Design for Learning (UDL) are fundamental to ensuring accessible curricula and diversified pedagogical practices. According to the National Policy on Special Education from the Perspective of Inclusive Education (BRAZIL, 2008), AEE should complement rather than replace regular education, offering resources and strategies that eliminate barriers to the full participation of students with disabilities. UDL, according to Rose and Meyer (2002), proposes pedagogical planning with multiple forms of representation, action, and engagement, so that all students can learn according to their potential. This approach is reinforced by Zerbato and Mendes (2018), who highlight that DUA shifts the focus from specific adaptations to the design of a flexible and inclusive curriculum from the beginning of the educational process.

However, the concrete reality of rural schools shows that many of these guidelines have not yet materialized. There is a lack of accessibility resources such as ramps, adapted bathrooms, adequate school transportation, and assistive technologies. The scarcity of accessible teaching materials such as Braille books, screen reader software, and visual and tactile resources highlights the inequality between rural and urban areas and compromises the principle of equity. Sasaki (1998) emphasizes that full inclusion depends not only on physical changes, but also on a cultural and attitudinal transformation that eliminates social and pedagogical barriers.

In addition to infrastructure, there is the pedagogical isolation of teachers, who

often work without technical support or the exchange of experiences with other professionals. The absence of collaborative networks limits the development of innovative and inclusive strategies. Mantoan (2003) points out that school inclusion requires “a change in conception and consistent investment in teacher training.” Thus, strengthening continuing education, whether in person or hybrid, is an indispensable condition for rural teachers to understand the specific needs of their students and develop contextualized pedagogical practices.

Inclusion in rural areas must be understood as a collective responsibility and not just a task for schools. Coordination between education, health, social assistance, and infrastructure is essential to ensure that students with disabilities have access, permanence, and learning under equitable conditions. An example of this is adapted school transportation, the absence of which often prevents attendance even when there are good pedagogical conditions at the institution.

Despite the adversities, there are transformative experiences. Democratic management and community participation, historical principles of Rural Education, are also powerful tools for inclusion. When the community participates in the development of the Pedagogical Political Project, the solutions begin to reflect the local reality, the community’s knowledge, and the available resources. Caldart (2012, p. 15) reinforces this perspective by stating that “the rural school is one that assumes the identity of the countryside and builds the reference for a new pedagogy, present in the life of the community and committed to its major issues.”

In addition, inclusive digital technologies are becoming important allies. Despite still limited connectivity in many rural areas, public policies that promote access to the internet and affordable equipment can enhance innovative pedagogical practices, reduce distances, and strengthen inclusion. The OECD (2012) highlights that educational equity depends both on the quality of available resources and the ability to adapt teaching to local needs.

Therefore, Rural Education and Inclusive Education should be understood as interconnected dimensions of the same social justice agenda. Both are based on the recognition of cultural, territorial, and functional differences as expressions of human diversity and, therefore, as sources of learning and transformation. The implementation of this integration requires investment in accessible infrastructure, strengthening of AEE and DUA, production and distribution of adapted materials, expansion of continuing education, and creation of permanent intersectoral partnerships.

More than complying with legal requirements, it is about guaranteeing the right to education with social quality, in which all students with or without disabilities can learn, participate, and develop where they live, valuing their identity and belonging.

Thus, inclusive rural education reaffirms the principle that diversity is not a problem to be solved, but a treasure to be cultivated, the foundation of a democratic, accessible, and humanizing public school system. However, this understanding is not automatic. It needs to be incorporated by educators beyond mere discourse. This requires commitment and study in training processes. It is in this direction that we emphasize, in the following, the continuing

education of teachers as fundamental to the understanding of this and other processes that promote meaningful learning.

CONTINUING EDUCATION FOR TEACHERS

Continuing teacher training plays an essential role in strengthening inclusive education by providing tools and knowledge that enable teachers to deal with diversity in the classroom. Inclusion goes beyond simply placing students with specific needs in the school environment. It is about promoting a space where all students have equal opportunities to develop their potential. In this sense, continuing education emerges as a process that allows for the reinterpretation of pedagogical practices and brings theory closer to the reality experienced in everyday school life (Lima and Moura, 2018).

For inclusion to be effective, teachers must have access to continuing education programs that take into account the specificities of students' diverse conditions. As Carvalho *et al.* (2018) point out, many teachers still face difficulties in working with students with disorders such as autism spectrum disorder, often due to a lack of specialized training. Continuing education, in this context, provides the development of specific skills, such as planning adapted activities and using inclusive methodologies. This training not only prepares teachers but also strengthens their confidence in working with these students, promoting a more welcoming and effective environment for everyone.

Regarding duties, LDB No. 9,394 of 1996 establishes in Article 13 that teachers must participate in the development of the educational institution's pedagogical propo-

sal and ensure student learning, in addition to teaching the scheduled school days and collaborating with families and the community (BRAZIL, 1996, p. 6).

Inclusive education does not refer only to the enrollment of people with disabilities in the regular education system. It also concerns the provisions that need to be ensured to guarantee equitable conditions of access, permanence, and educational achievement for all students, considering their physical, intellectual, and social characteristics. According to Miranda (2019), it was in the 1990s that school inclusion gained prominence in Brazil, driven by legislative initiatives and public policies that guided education towards a more democratic system.

Continuing education enables teachers to better understand the laws and public policies that guide inclusive education. Documents such as the Law of Guidelines and Bases for National Education and the National Policy on Special Education from the Perspective of Inclusive Education reinforce the need for teacher training to meet the demands of an inclusive school (Carvalho *et al.*, 2018). However, as highlighted by Miskalo *et al.* (2023), it is essential that these training programs be planned according to the specific needs of each educational context, promoting effective and transformative practices.

Continuing education is a dynamic and ongoing process that accompanies teachers throughout their professional careers. As Lima and Moura (2018) state, constant updating is essential for teachers to develop critical autonomy and reflective capacity. Thus, continuing education not only prepares teachers for the challenges of inclusion, but also contributes to their personal and professional development, strengthening

their role as agents of social transformation. In this sense, it has become necessary to address the pedagogical strategies used in the context of special education, establishing the relationship between teacher training and practices that favor student participation and learning.

CONTINUING EDUCATION FOR TEACHERS IN RURAL SCHOOLS: CHALLENGES AND POTENTIAL FOR INCLUSION

The continuing education of teachers in rural schools plays a central role in consolidating inclusive educational practices that consider human diversity as the foundation of pedagogical work. Teaching in rural areas involves specificities that cut across school organization, community times, and sociocultural dynamics, requiring training processes that go beyond standardized and urban models.

In these schools, the inclusion of students targeted by special education requires the development of knowledge that articulates pedagogical concepts, understanding of the territory, and mastery of curricular accessibility strategies. Thus, continuing education cannot be reduced to one-off events, but must constitute a permanent process capable of strengthening professional identity and promoting reflective, critical, and collaborative practices that respond to the concrete characteristics of the field.

The educational literature points out that teacher professional development depends on the articulation between theory and practice, with a focus on the analysis of real situations that emerge from everyday school life. In the context of the field, this articulation requires attention to local ways of life, forms of community organization,

and the structural challenges that characterize rural schools.

By understanding these dimensions, continuing education enables teachers to plan based on an accessible, flexible, and diversity-sensitive curriculum. In this sense, Gatti (2019) points out that “teacher training needs to dialogue with the place where they work,” highlighting that the territory constitutes a structuring axis for the construction of pedagogical practices that actually promote learning. To this end, it is important to focus on pedagogical strategies that contribute to this process.

PEDAGOGICAL STRATEGIES: AEE, DUA, AND FORMATIVE ASSESSMENT

Rose and Meyer (2002), creators of the concept, explain that DUA is based on three principles: representation, action and expression, and engagement. These principles are related to the different ways in which individuals perceive, process, and express knowledge. Thus, teachers who work from a DUA perspective recognize that each student learns in a unique way and, therefore, must offer varied paths to learning, incorporating visual, auditory, technological, and interactive resources that make the content accessible to all.

Zerbato and Mendes (2018) add that DUA opposes the traditional logic of “ad hoc adaptations,” often designed only for students with disabilities, and proposes the planning of a flexible and open curriculum capable of addressing diversity without the need for subsequent adjustments. The DUA perspective, therefore, shifts the focus from the student as a “problem” to the education system as a promoter of accessibility,

understanding that exclusion stems largely from pedagogical barriers and not from individual limitations.

In the inclusive process, assessment also needs to be rethought. Formative assessment shifts the focus from error to possibilities for growth and is conducted continuously and integrated into teaching, enabling teachers to understand each student's stage of learning and adjust their pedagogical practice. Libâneo (2013) emphasizes that formative assessment contributes to student advancement, rather than classifying or excluding them for their difficulties.

The practice of assessment in our schools has been criticized above all for being reduced to its control function, whereby students are quantitatively classified according to the grades they obtain in tests. Teachers have not been able to use assessment procedures [...] to fulfill their educational functions (LIBÂNEO, 2013, p. 217).

From this perspective, Rose and Meyer (2002) also associate the concept of formative assessment with the dimension of action and expression of DUA, emphasizing that students should have multiple opportunities to demonstrate what they have learned—through texts, oral presentations, artistic productions, or practical activities. Thus, assessment ceases to be a mechanism of exclusion and becomes an instrument of autonomy and active participation of the student in the teaching-learning process.

For such practices to be effective, it is essential to understand that inclusion is not

restricted to the physical presence of students in school. Sasaki (1998) argues that building a truly inclusive society requires the elimination of attitudinal, architectural, and pedagogical barriers, promoting the full participation of all people, with or without disabilities, on equal terms.

In this sense, schools must rethink their physical structures, curricula, and teacher training so that everyone has real conditions for access and quality retention. In addition, the implementation of DUA and AEE requires the development of collaborative practices between classroom teachers, specialized care professionals, and management teams. Dialogue between these professionals broadens the repertoire of teaching strategies, favors the adaptation of teaching resources, and strengthens collective planning, which is essential for the success of inclusive education (Zerbato; Mendes, 2018).

Another relevant aspect is that the DUA and AEE converge in valuing diversity as a constitutive element of learning, rather than an obstacle. This understanding breaks with the paradigm of homogeneity and recognizes that each student has their own pace, style, and learning potential. According to Sasaki (1998), full inclusion depends on a “progressive restructuring of the educational system and a significant change in the conception of inclusion by society and, above all, by school professionals.”

Thus, the role of the teacher is to mediate differences, responsible for articulating practices that dialogue with the singularities of each student. This requires continuing education, institutional support, and time for collaborative planning. The DUA offers a theoretical and methodological framework that helps educators organize their actions, while the AEE provides the means and re-

sources necessary to eliminate concrete and symbolic barriers in the teaching process.

It is also important to highlight that adapted digital technologies are also an important resource for expanding access for students with disabilities, even in regions with limited connectivity. Public policies that expand internet access and ensure accessible equipment favor innovative practices and contribute to student retention.

Therefore, effective school inclusion implies understanding that there is no single teaching model capable of serving all students. Flexible planning is necessary, open to diversity and supported by principles of equity and social justice. When DUA and AEE are implemented in a coordinated manner, the result is a more accessible, participatory, and democratic learning environment that recognizes the uniqueness of each individual and values their potential. To this end, it is also necessary to prioritize collaborative school management, as noted below.

SCHOOL MANAGEMENT AND COLLABORATIVE PRACTICES IN INCLUSION

When viewed from the perspective of school inclusion, rural education reveals a set of challenges that go beyond pedagogical dimensions and are directly linked to the social, cultural, and structural conditions of the territory. Schools located in rural areas, settlements, and traditional communities face obstacles that, in many cases, accentuate the barriers already present in urban areas. In these locations, it is common to find multi-grade classes, long distances traveled by students, and a shortage of professionals specialized in special education, factors that make the implementation of inclusion dis-

continuous and dependent on intersectoral public policies capable of responding to the concrete needs of communities, considering their sociocultural specificities.

The concept of education in and of the countryside recognizes local times, knowledge, and ways of life as constitutive elements of the educational process. From this perspective, Rural Education is not a pedagogy, but a concept of education permeated by social formation (CALDART et al., 2012). As Arroyo (2004) warns, an educational proposal that values rural life needs to take on a political dimension, one of resistance and affirmation of identity, and not just adaptation of the urban school.

This understanding is essential for thinking about school inclusion in rural areas, as the physical presence of students with disabilities does not guarantee participation and learning if it is not in dialogue with the social and productive reality in which they live. According to Lück (2012, p. 45), “school leadership for inclusion transforms culture, structures, and internal practices, making the teaching-learning process accessible to all students.”

School leaders need to be concerned with multiple aspects that hinder inclusion, including the scarcity of accessible teaching materials, which compromises equity and maintains historical inequalities between students in rural and urban areas. This technological and material gap prevents the teaching-learning process from being completely inclusive, contrary to the constitutional right of all to quality education.

At the same time, teachers working in rural schools often experience pedagogical isolation and a lack of ongoing technical and pedagogical support. The lack of

specific initial training and regular training programs focused on inclusive practices generates insecurity and overload, corroborating Mantoan's (2003) statement that "school inclusion requires a change in conception, which is only possible with consistent investment in teacher training." Based on the studies and reflections provided by the theoretical insights and observations of the practice carried out by the researchers, it was possible to systematize the conclusions presented below.

POSSIBLE CONCLUSIONS

The objective of this research was to analyze the contributions of continuing education to the implementation of inclusive special education in the municipality of Paranaguá, with special attention to the specificities of rural education. Throughout the study, we sought to understand how public policies, legal frameworks, theoretical references, and territorial conditions are linked to teaching work and influence the possibilities and limits of school inclusion in different contexts in the municipality. Based on this articulation, it was found that training processes play a strategic role in qualifying pedagogical practices and strengthening the critical capacity of education professionals, especially in rural schools.

The implementation of inclusion in rural areas requires intersectoral action that goes beyond the pedagogical sphere and requires coordination between education, health, transportation, and social assistance. The lack of accessible transportation can prevent students with disabilities from attending school, even when the school offers good pedagogical conditions. The lack of integration with health services weakens

the early identification of educational needs and hinders appropriate referral to Specialized Educational Services. Inclusion in rural areas must be understood as a collective commitment marked by social, economic, territorial, and cultural dimensions.

Despite historical challenges, there are concrete paths for progress. Rural education values democratic management and community participation, which creates favorable conditions for strengthening inclusive practices. The participation of the school community in the construction of the Pedagogical Political Project favors solutions that are consistent with the local reality and aligned with the identities of rural subjects. For Caldart (2012), rural schools assume the identity of the territory and create a pedagogical reference committed to the life of the community.

In summary, inclusive education in the context of Rural Education is marked by contradictions. While advancing as a policy of rights, it faces structural, pedagogical, and formative barriers that hinder its consolidation. Overcoming these barriers requires investments in accessible infrastructure, strengthening of AEE, production and distribution of adapted teaching materials, continuing education for teachers, and expansion of intersectoral partnerships. More than complying with legal requirements, it is about ensuring the right to education with social quality, guaranteeing that all students with or without disabilities are able to learn, participate, and develop in the space where they live.

From the perspective of special and inclusive education, continuing education needs to incorporate guidelines that help teachers anticipate pedagogical barriers and organize educational responses that consider

the specific needs of students, without reducing inclusion to a set of techniques.

The Universal Design for Learning approach, which proposes multiple forms of engagement, representation, and expression, favors accessible planning from the beginning of the teaching process, avoiding the logic of subsequent adaptation. Similarly, the principles of Specialized Educational Services contribute to broadening teachers' understanding of the identification of barriers, the use of pedagogical resources, and the articulation between regular teaching and specialized support. When incorporated into continuing education, these references help build a professional attitude that understands inclusion as an integral part of practice and not as a parallel action.

When analyzing continuing education in rural schools from the perspective of inclusion, it is possible to see that this process requires more than the transmission of content. It requires the strengthening of an investigative attitude that leads teachers to critically analyze their practice, recognize institutional limitations, and build, together with the school community, ways to overcome barriers. Ongoing reflection allows teachers to understand that inclusion is achieved through the pedagogical relationship and the reorganization of the curriculum, time, and methodologies. This understanding enables teachers to recognize the uniqueness of students and plan actions that respect their rhythms, languages, and ways of learning.

Continuing education also plays a decisive role in developing the pedagogical awareness necessary for inclusion. By promoting in-depth study of legislation, public policies, conceptions of disability, and accessibility practices, it contributes to the

construction of a critical view of human diversity. This is especially relevant in rural schools, where teachers often work with less technical support and need to develop pedagogical responses that take into account both the structural limitations and the potential of the territory. In this scenario, continuing education becomes a source of strengthening teacher autonomy and expanding the possibilities for pedagogical action.

School inclusion in rural areas involves particular challenges, such as a shortage of specialized professionals, limited pedagogical resources, and the existence of multi-grade classes. These factors require flexible planning and mastery of strategies that enable all students to have access to knowledge, regardless of their individual characteristics. Continuing education, by offering theoretical and methodological tools, enables teachers to organize practices that value diversity and ensure equitable learning conditions. A critical understanding of inclusion allows teachers to recognize that the participation of students with disabilities is not limited to physical presence in school, but involves the right to engagement, expression, and the development of intellectual and social autonomy.

In addition, continuing education can contribute to strengthening collaboration between classroom teachers and specialized service professionals, promoting joint planning and the development of strategies that involve the entire school team. Collaboration is essential for inclusion to become a collective responsibility and not just an individual task. By reflecting on practices, discussing challenges, and evaluating evidence of learning, teachers build a pedagogical culture that favors the full participation of

students and expands the repertoire of educational solutions.

Another relevant aspect is that continuing education focused on the field must promote the recognition of local knowledge and the identities that constitute these territories. Inclusion is not achieved solely through mastery of theories or methodologies, but also through dialogue with community practices, forms of work organization, and the cultures that permeate students' lives. By recognizing the territory as an educational space, continuing education helps teachers interpret the concrete conditions of the field and develop strategies that consider the sociocultural context of the students targeted by special education.

In this sense, continuing education should be understood as a strategic policy for consolidating inclusion in rural schools. By promoting planned and continuous studies, critical analysis, and collective reflection, it enables teachers to develop pedagogical sensitivity and the ability to reorganize their practice in response to students' needs. Continuing education also promotes the understanding that inclusion is a continuous process that is realized in the classroom through careful planning and mediation that is attentive to the individual characteristics of students.

Teaching in the field requires teachers to be able to reconcile multiple pedagogical demands without losing sight of the centrality of learning and students' rights. Continuing education strengthens this ability by expanding the theoretical repertoire, updating methodological references, and encouraging reflection on practice. In this context, Freire (1996) argues that "teaching requires respect for the autonomy of the learner" and that the act of education is a practice

of ethical and dialogical responsibility. This understanding reinforces that continuing education is not only technical improvement, but a process that involves values, commitments, and pedagogical intentions.

To summarize these aspects, it can be said that continuing education in rural schools, when guided by inclusive principles, promotes transformation in pedagogical practice and in the way teachers conceive of human diversity. It expands the capacity to develop accessible plans, strengthens critical analysis of barriers, and enables schools to develop practices that ensure participation and learning for all. As Caldart (2012, p. 77) states:

"The rural school is a space for human development and for the production of meaning about life and work. Its commitment is to the construction of conscious individuals, capable of understanding their territory and acting collectively to transform social conditions. This development requires continuous processes of study and reflection that respect the identity of the countryside and recognize diversity as an educational principle."

This concept reinforces that continuing education is an essential element for the consolidation of inclusive practices in rural areas, as it broadens teachers' understanding of the relationship between territory, diversity, and learning.

The research identified that school inclusion in rural areas faces challenges such as a lack of specialized professionals, a short-

tage of accessible materials, limited teaching resources, and the presence of multi-grade classes. These factors require flexible planning and diversified strategies to ensure that all students achieve their learning objectives according to their needs. In this scenario, continuing education offers theoretical and methodological foundations that enable teachers to organize inclusive practices and promote equitable learning conditions. The participation of students with disabilities should involve engagement, the possibility of expression, and the development of intellectual and social autonomy.

Continuing education should be understood as a strategic policy to consolidate inclusion in rural schools. Structured study processes, peer dialogue, and critical analysis of pedagogical practice strengthen teachers' ability to reorganize their work according to students' demands. Continuing education reinforces the understanding that inclusion is an ongoing process that occurs in the classroom through careful planning and mediation sensitive to the individual characteristics of students.

The study prioritized bibliographic and documentary research, as this approach allows for the construction of critical syntheses and an in-depth understanding of the theoretical and political foundations that guide teacher training and school inclusion. Authors such as Gatti, Imbernón, and Freire argue that teacher training should articulate theory and practice and be situated in the real context of the school. In Paranaguá, this reality involves both urban schools and rural areas that are home to fishermen, family farmers, riverine communities, *caiçaras* (traditional coastal communities), and residents of islands and traditional communities. The-

se individuals have specific ways of life that directly influence educational demands.

In this scenario, the importance of the First Seminar on Rural Education in Paranaguá stands out, bringing together educators, administrators, community leaders, and researchers to discuss the challenges and potential of rural education. The event highlighted the concrete conditions faced by rural schools and reinforced the need for educational policies that are sensitive to cultural diversity and the particularities of the territory. The discussions revealed a lack of continuous support policies, teacher overload, and a shortage of technological and teaching resources, factors that still limit the consolidation of inclusive practices.

Based on these elements, it is understood that the interfaces between Inclusive Education and Rural Education constitute the central axis of this study. These interfaces represent points of connection between the principles of inclusion and the territorial, cultural, and social specificities of the countryside. In Paranaguá, these interfaces reveal that it is not possible to think about accessibility and equity without considering the ways of life of rural communities. Inclusion depends on policies that articulate Specialized Educational Services (AEE), Universal Design for Learning, formative assessment, and continuing education to the demands of rural subjects. Thus, ongoing teacher training is the foundation of inclusion, articulating pedagogical knowledge, ethical commitment, and social responsibility with educational equity.

It can therefore be concluded that school inclusion depends on the recognition and appreciation of the interfaces between Inclusive Education and Rural Education, since it is precisely in the articulation between

en these two dimensions that the real conditions of access, permanence, participation, and learning are defined. These interfaces represent the meeting points between the educational needs of the target audience of special education and the territorial, cultural, and social characteristics of the rural, riverside, and coastal communities of the municipality.

Thus, public policies, pedagogical practices, and training processes must simultaneously consider the demands of inclusion and the specificities of the field, so that teaching work is developed in a contextualized manner that is sensitive to local realities. We therefore emphasize that for inclusive education to be effective, the following are necessary: continuous investment in teacher training, strengthening of democratic management, and implementation of policies capable of integrating principles of inclusion, valuing territorial identities, and recognizing rural ways of life.

Guaranteeing the right to education, both in urban and rural areas, requires coordination between up-to-date theoretical concepts, innovative pedagogical practices, and a deep understanding of the sociocultural dynamics of the territory. Thus, it is understood that Inclusive Education and Rural Education are inseparable dimensions of the same social justice agenda, committed to building schools capable of embracing human and territorial diversity and promoting meaningful learning for all.

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