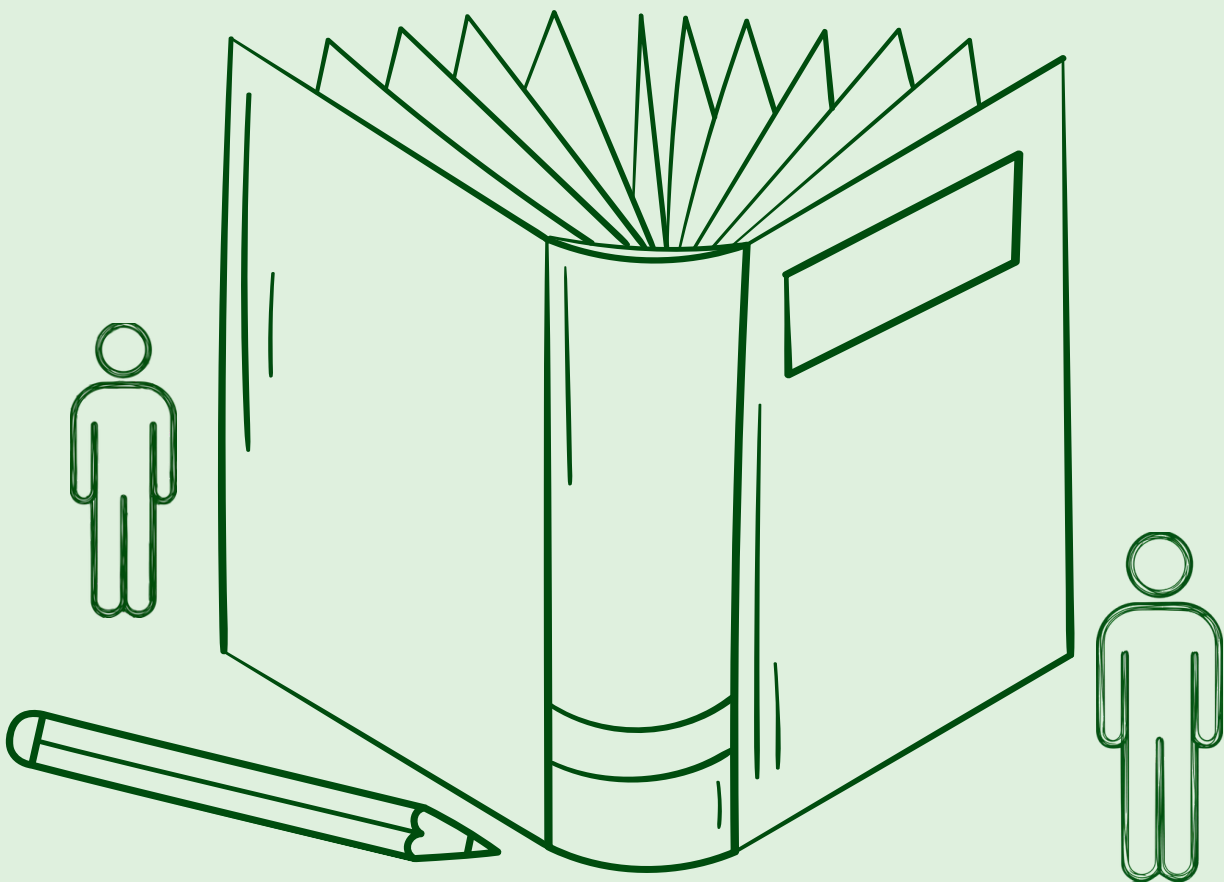


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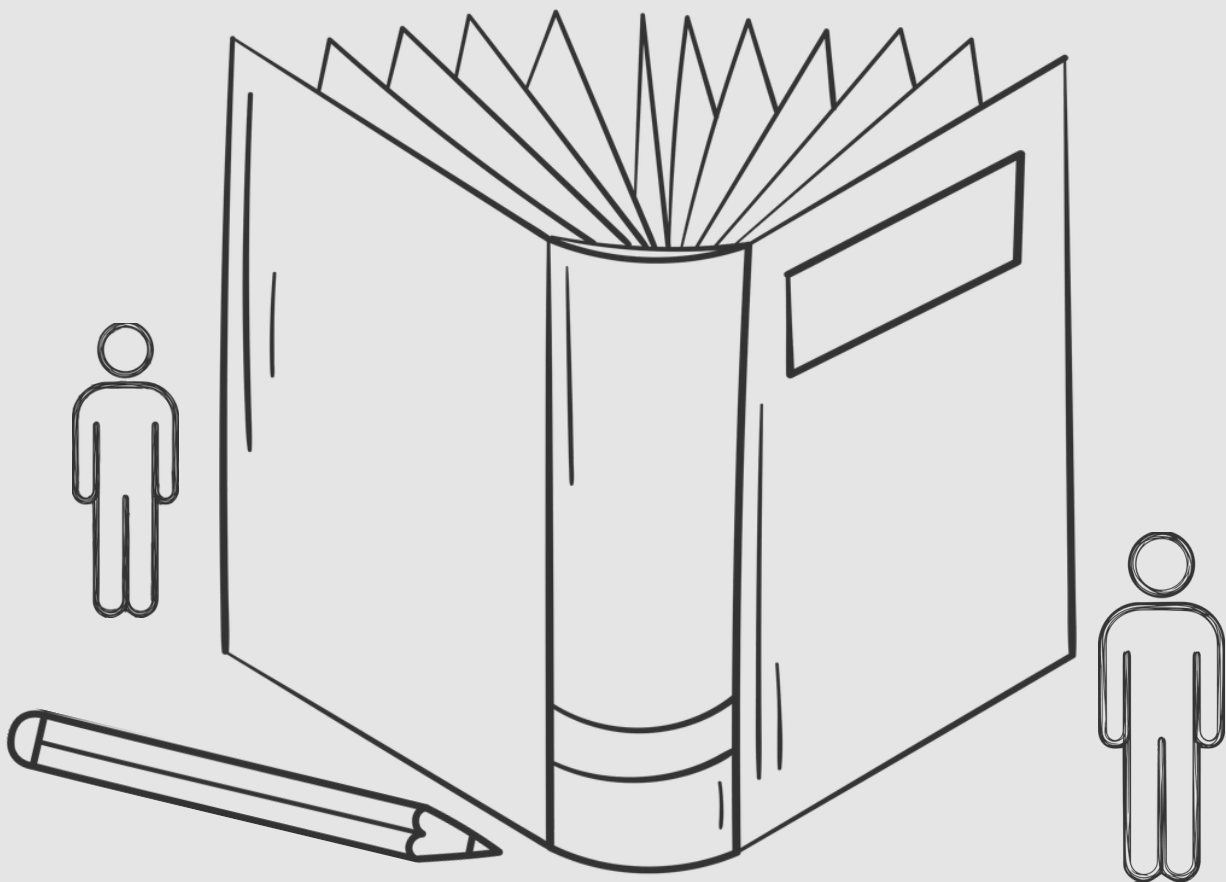


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**ETHNOBOTANICAL AND SOCIO-ENVIRONMENTAL KNOWLEDGE SCIENCE
EDUCATION AT A PRIVATE SCHOOL IN BREVES, PARÁ, MARAJÓ MESOREGION**

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**Eduardo Antonio Abreu Pinheiro¹, Rayane Pereira Barreiros², Maria Emília Higino de Oliveira³,
Benedita da Costa Gonçalves⁴, Vitória Maigda Magno Gomes⁵, Maria Dalva Rocha Marques⁶ and
Maylanne Batista do Nascimento⁷**

Abstract

Traditional knowledge of medicinal plants has prevailed in society for decades, but it is still little explored in schools. Therefore, this study aimed to discuss, in a playful and didactic way, with 6th-grade students from a private school located in the urban area of the municipality of Breves, Marajó Mesoregion, Pará, the importance of these botanical species for the promotion of health and sustainability. The methodologies adopted were the application of questionnaires for prior investigation into the students' ethnobotanical knowledge, and the use of experiments and the holding of a science fair that brought together traditional and scientific knowledge with the students' experiences in relation to ethnobotany. Finally, the results of this research were positive because these practices strengthened socio-environmental education in the Marajó school context, sparked curiosity, and stimulated active

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participation in the teaching-learning process so that students become critical, engaged citizens committed to issues related to the intangible and cultural heritage of Marajó, environmental preservation, and biodiversity conservation.

Keywords: Medicinal plants, Active methodologies, Ethnobotanical knowledge, Health promotion, Socio-environmental education, Marajó Mesoregion.

INTRODUCTION

The use of medicinal plants is a historical practice of health care linked to traditional knowledge, community contexts, and sustainability strategies (Gomes et al., 2026). This body of knowledge, developed through empirical observation and collective experience, has been transmitted across generations, mainly through oral tradition and everyday practices, forming unique systems of health care that predate the institutionalization of modern medicine (Ding et al., 2024).

In Brazil and in different sociocultural contexts, the use of plant species for therapeutic purposes remains a recurrent practice, intertwined with traditional knowledge, community-based care strategies, and specific forms of biodiversity management (Bezerra & Oliveira, 2024). These practices are not limited to curative purposes but are embedded in ways of life, cultural identities, and expanded conceptions of health, even in contexts marked by the hegemony of the biomedical model (Vallejo et al., 2024). The persistence of such knowledge reveals the need to understand it in dialogue with contemporary scientific production, avoiding dichotomous approaches between tradition and science (Matos et al., 2024).

The use of medicinal plants is a cultural practice shared across generations among residents of the Marajó Archipelago, and many species are cultivated in home gardens due to a sense of safety, trust, and belief in their therapeutic potential. Thus, the use of these botanical species plays a central role in health, territorial identity, and sociocultural and environmental preservation, as reported by Pinheiro et al. (2025).

Brandão et al. (2024) suggest implementing pedagogical methodologies that incorporate

traditional knowledge about medicinal plants into school curricula, since this has a significant impact on children's development and enriches education through the integration of cultural and environmental practices.

Lack of contact with nature directly affects children's health and overall development, making them more vulnerable to extreme climate events. According to specialists, children's disconnection from green spaces, plants, and animals hinders the formation of respectful and even affective bonds with the environment (Lima & Fajardo, 2024). Therefore, schools must serve as environments in which children learn to interact, develop, and access new knowledge about the world, people, and the environment (Costa et al., 2024).

The implementation of pedagogical practices that stimulate the use of medicinal plants in educational settings through an interdisciplinary approach helps foster students' cognitive skills, strengthen bonds of environmental respect, and promote quality of life and differentiated learning (Nascimento et al., 2023). In this regard, Environmental Education (EA) is relevant for raising awareness about sustainability and fostering subjects engaged in environmental conservation (Rodrigues & Fonseca, 2026).

Science education in early childhood has been the focus of important studies, especially those aiming to create or refine more effective teaching methods and practices that develop new ways of thinking about science education. These approaches broaden discussions from an investigative and participatory perspective, encourage curiosity, exploration, wonder, inquiry, and children's understanding of the physical, social, and natural world, and promote interaction, self-care, sustainability, and biodiversity preservation (Ferreira et al., 2026).

Studying medicinal plants in Science classes in Elementary Education is crucial for connecting students to the relationships between nature and human health. When exploring these botanical species, students reclaim family and community knowledge, strengthening their sense of belonging and environmental responsibility (Jacyntho, 2025). Thus, the teaching-learning process must consider

students' unique characteristics and life experiences, stimulating them to seek new knowledge and become autonomous, critical socio-environmental agents with rights and responsibilities (Santos & Macedo, 2026). However, teaching about medicinal plants faces challenges due to the complexity of its concepts and technical procedures, requiring innovative didactic-pedagogical approaches that promote contextualization, scientific literacy, and sustainability (Lima et al., 2022).

Observation and experimentation are valuable didactic-pedagogical practices that aim to rescue and reinforce the cultural use of medicinal plants by communities, enabling interactive educational actions that connect cultural traditions and human-nature relationships across generations (Damasceno et al., 2023). Furthermore, active methodologies help stimulate students' protagonism in the teaching-learning process, cultivate genuine interest in ethnobotany, and encourage the sustainable use of natural resources, fostering scientific literacy (Sganzerla et al., 2026).

The socio-environmental topic of medicinal plants has become increasingly relevant in schools, as it encourages the recovery of traditional knowledge, fosters awareness of health benefits, and strengthens the formation of citizens engaged in biodiversity conservation. Therefore, the workshop on medicinal plants—part of the research project “Perception and knowledge about medicinal plants among residents of the urban area of Breves, in the Marajó Archipelago, Pará”—sought to promote socio-environmental education in a playful and didactic manner among students from a private Elementary School in Breves, aiming to teach about phytotherapy, medicinal plants, and the environmental importance of ethnobotanical species through clear and concise language.

METHODOLOGY

The methodology used was a qualitative approach through a case study and educational action research conducted with 17 6th-grade students at the Núcleo de Excelência Marajoara School (NEM), located within UNOPAR College in the urban area of Breves. According to Oliveira et al. (2026), action research with a qualitative approach allows investigation of pedagogical practices contributing to the

implementation of the Sustainable Development Goals (SDGs) in contemporary education, enabling exploration of a complex and multifaceted topic so that teaching becomes a versatile tool for fostering participation, critical reflection, transformative action, and environmentally responsible practices. The case study approach allows assessment of the most suitable methodologies to motivate students to become familiar with scenarios and characters related to specific situations, developing skills such as argumentation, teamwork, socio-environmental awareness, and others that enhance scientific education aligned with sustainability principles (Lima et al., 2025). All students participated after their guardians signed the Informed Consent Form, and the research was carried out from June to August 2025.

In June 2025, questionnaires were applied to investigate students' socio-environmental perceptions regarding medicinal plants. Afterwards, a workshop on medicinal plants was held in the UNOPAR Science Laboratory, where various experiments were carried out (Figure 1) to encourage student engagement. According to Costa et al. (2023), experimental activities provide more meaningful and effective learning based on Critical Environmental Education, allowing students to take an active, autonomous role in constructing collective knowledge and understanding socio-environmental issues by considering the interconnectedness of social and natural worlds, mediated by local, traditional, and scientific knowledge.

Figure 1

Workshop on medicinal plants at the Núcleo de Excelência Marajoara School (NEM).



Source: Authors, 2026.

Finally, 6th-grade students organized a medicinal plant exhibition (Figure 2) during a science fair on “Sustainability in the Amazon,” held on August 22, 2025, which coincides with Folklore Day. According to Sousa et al. (2025), such events stimulate students’ interest in scientific investigation, critical thinking, teamwork, and knowledge exchange with visitors.

Figure 2

Science fair on medicinal plants and sustainability in the Amazon at NEM School.



Source: Authors, 2026.

RESULTS AND DISCUSSION

ANALYSIS OF THE QUESTIONNAIRES ON SOCIO-ENVIRONMENTAL PERCEPTION

Seventeen 6th-grade students from NEM were interviewed: 8 boys and 9 girls. Regarding age, 23% were 10 years old, 62% were 11 years old, and 15% were 12 years old. When asked whether they knew any medicinal herb or plant, 69.2% answered yes, citing mint, chamomile, lemongrass, verônica, and capim-santo. According to Santos & Macedo (2026), prior knowledge allows medicinal plants to be used as didactic resources grounded in their rich cultural history, highlighting the intersection between traditional and scientific knowledge on biodiversity.

When asked whether older relatives had advised them to use medicinal plants, 64.7% said yes. Most noted the influence of grandparents and parents in teaching them about these species as important cultural heritage linked to community health and sustainable use of natural resources. This aligns with

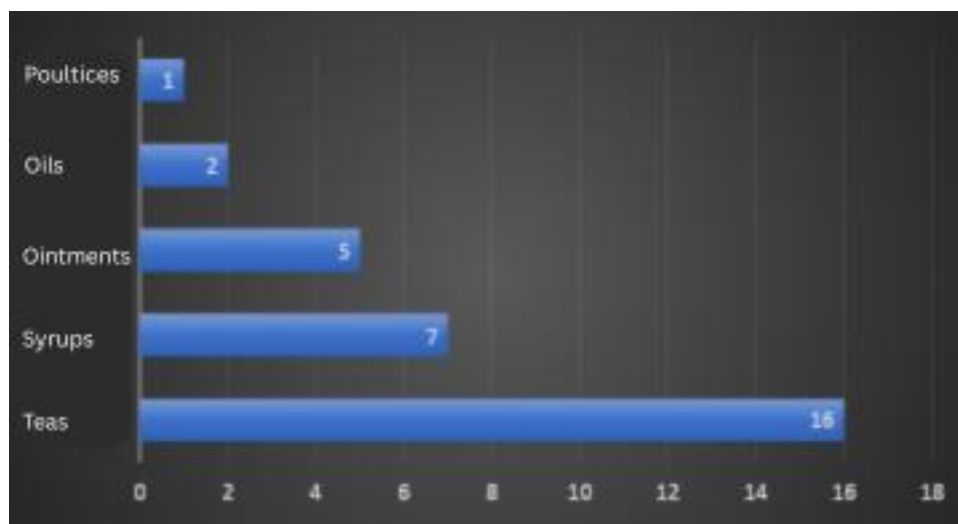
Silva et al. (2026), who argue that integrating popular knowledge with scientific evidence can advance public health and recognition of biodiversity as cultural and therapeutic heritage.

When asked about symptoms and illnesses treated with medicinal plants, students mentioned allergies, fever, headaches, and especially respiratory problems. According to Carvalho et al. (2025), herbal medicines are effective and safe as antioxidant, antiviral, antimicrobial, and anti-inflammatory agents, particularly for respiratory infections.

Regarding the most common method of preparation and consumption, tea was the most cited (16 mentions), followed by syrup (7 mentions), as shown in Figure 3. Teas are traditional preparations present in many cultures around the world, used therapeutically for thousands of years (Eberhardt et al., 2025). Additionally, tea consumption remains an important phytotherapeutic and complementary health strategy due to factors such as the high cost of industrialized medicines and, at times, limited access to quality healthcare systems (Souza et al., 2026).

Figure 3

How medicinal plants are prepared and consumed.



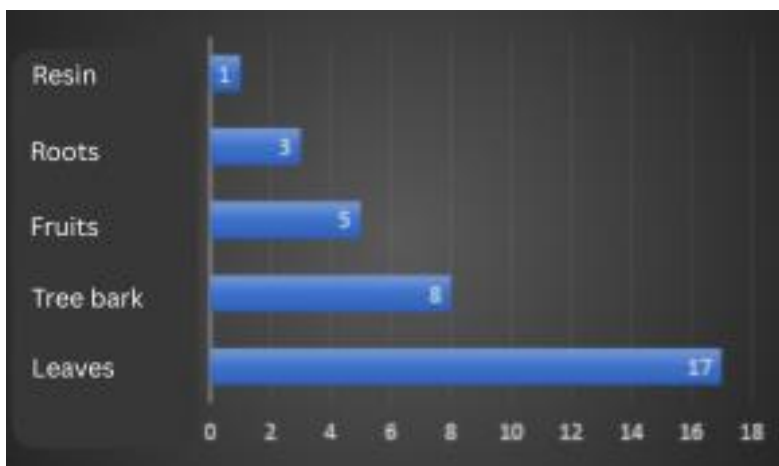
Source: Prepared by the authors, 2026.

Regarding the most commonly used plant parts, leaves were the most cited (17 mentions), followed by bark (8 mentions), as shown in Figure 4. According to Silva et al. (2026), the predominance

of leaves may be associated with ease of collection, seasonal availability, and the persistence of traditional knowledge identifying the most effective plant parts. Carbolim et al. (2025) also highlight that leaf collection is generally not harmful to plants, whereas excessive collection of bark and roots can damage or kill them.

Figure 4

Most commonly used plant parts reported by students.



Source: Prepared by the authors, 2026.

When asked whether they had ever felt unwell after consuming medicinal plants, only one student reported nausea and muscle discomfort. It is therefore important to emphasize that despite their traditional use, medicinal plants are often employed based on common sense, which may pose health risks. Thus, practices promoting the rational use of herbal medicines are necessary (Reis et al., 2025).

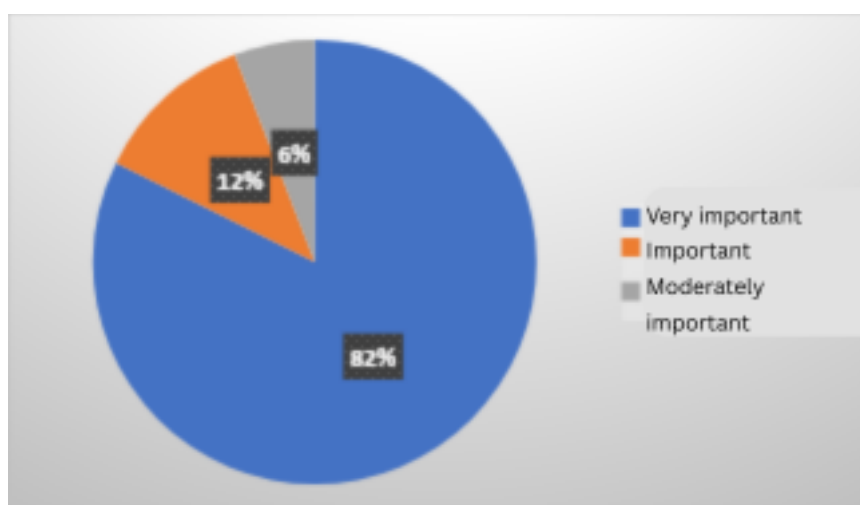
ANALYSIS OF THE QUESTIONNAIRES ON THE SOCIO-ENVIRONMENTAL EDUCATION WORKSHOP AND THE SCIENCE FAIR ON SUSTAINABILITY IN THE AMAZON

After the workshop and science fair, a questionnaire was applied to evaluate active methodologies for promoting health and environmental awareness. During the experimental activities, students prepared chamomile and fennel teas, aloe syrup with grape juice, and clove-based repellent. When asked about the importance of these procedures in the teaching-learning process, most students (82%) rated them as very

important, as shown in Figure 5. According to Holanda & Beranger (2025), such active methodologies significantly contribute to transforming teaching-learning practices toward more inclusive and effective approaches by engaging the entire school community. These authors also highlight the need for planned and sustainable integration of such innovations, aligning pedagogical strategies with resources and educational contexts.

Figure 5

Evaluation of active methodologies by 6th-grade students at NEM.



Source: Prepared by the authors, 2026.

When asked about the importance of these experimental practices for health, all students considered them highly relevant. According to Morais et al. (2025), experiences involving medicinal plants help people understand their health benefits while fostering respect for sustainability.

When asked about the importance of medicinal plants for the environment after the workshop and science fair, all students stated that they were very important. This finding is consistent with Magalhães (2025), who highlights the therapeutic, ecological, and sociocultural potential of medicinal plants and the importance of connecting theory and practice in environmental education and appreciation of traditional knowledge.

CONCLUSION

Although the use of medicinal plants is an ancestral practice discussed since the origins of humanity, it still presents challenges when addressed in formal educational settings. It is therefore essential that teachers act as mediators in the teaching-learning process and adopt active methodologies so that students become protagonists of an education that stimulates creativity, proactivity, teamwork, and the appreciation of invaluable intangible cultural heritage. Teaching should emphasize ethical principles grounded in ethnobotanical knowledge and sustainability, enabling students to become critical, committed, and engaged citizens in biodiversity conservation.

The experience reported in this article demonstrated the educational potential of cultural learning circles, especially regarding a theme rooted in popular tradition, allowing children to share their experiences and traditions and engage with the empirical knowledge embedded in Marajó's culture. Furthermore, the activities carried out in this research helped students from a private elementary school in urban Breves, Pará, in the Marajó Mesoregion, to cultivate a sense of connection to their culture and the environment, integrating traditional and scientific ethnobotanical knowledge through group dialogue and active participation in experimental activities and a science fair grounded in regionalism and environmental preservation.

Phytotherapy, ethnobotanical knowledge, and Science Education must be continuously explored, interconnected, and discussed to enhance meaningful learning practices in socio-environmental education.

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**CONTRIBUTIONS OF THE LETTERS PROGRAM AT THE ARAGUAIA UNIVERSITY
CAMPUS/UFMT TO TEACHER EDUCATION DURING THE PANDEMIC AND POST-
PANDEMIC PERIOD: THINKING ABOUT SUPERVISED CURRICULAR INTERNSHIP IV** <https://doi.org/10.63330/aurumpub.046-002>**Maria Claudino da Silva¹ and Odorico Ferreira Cardoso Neto²****Abstract**

Through this article, we present the result of the experience of “daring” as Professors of Supervised Curricular Internship, against the backdrop of the COVID-19 pandemic, when UFMT out of necessity carried out the Supervised Curricular Internship IV in semester 2021-2 via remote teaching, at a time when all Basic Education schools also carried out remote teaching. From this, the discipline has been carried out, in each semester, with Teaching Projects that then generate an Extension Project that also started to be worked on in its face-to-face form. Our analyses, point to the conception of internship present in the thinking of the regent teachers and the evaluation of the students due to the aspects they consider positive in its accomplishment. The methodology used assumes the investigation into the perception of academics (as) of carrying out the internship in the classroom with the presence of an external public at the university (teachers, high school students preparing for the Enem, housewives interested in the themes related to language and literature for basic education). The perspectives pointed out here lead us to the understanding of the challenges faced in teacher training through the relationship established between the school and the university when carrying out the supervised internship.

Keywords: Supervised internship, Teacher training, Teaching practice, Pandemic, Post pandemic.

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INTRODUCTION

With the COVID-19 pandemic and the resulting suspension of in-person classes, the traditional educational model was exposed to a range of challenges, disrupting the entire cycle of learning within schools and generating a collective effort to confront the difficulties that intensified during the pandemic and in the post-pandemic period.

During the remote period, several questions emerged, among them: “Did this new form of learning actually produce good results?” Based on this, the present study sought to report the bold experience of the Professors of Supervised Curricular Internship, set against the context of the COVID-19 pandemic, when UFMT, out of necessity, offered Supervised Curricular Internship IV remotely in semester 2021-2, at a moment when all Basic Education schools were also operating remotely. Since then, the course has been conducted each semester through Teaching Projects that subsequently generate an Extension Project, which also came to be developed in its face-to-face format.

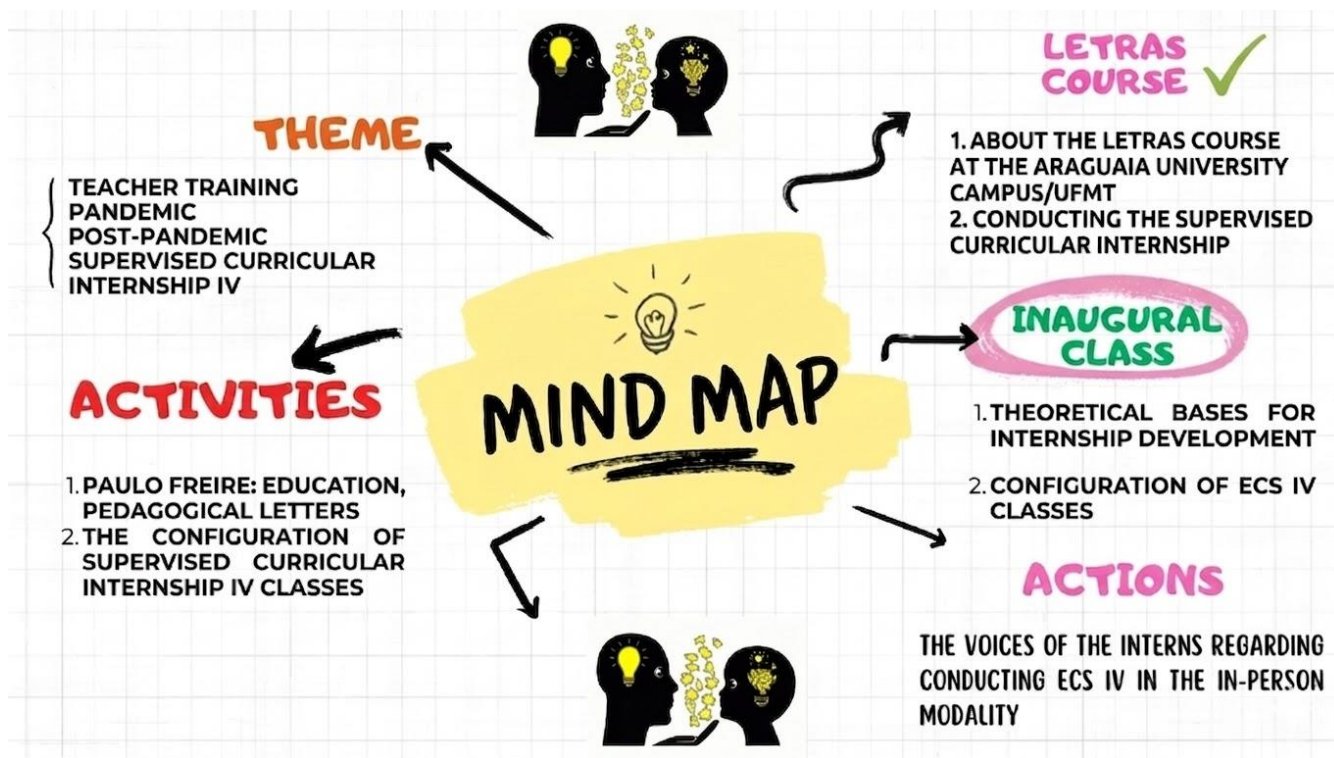
The studies carried out point to the conception of internship present in the thinking of cooperating teachers and to students’ evaluations in light of the aspects they consider positive in its implementation. The methodology adopted is based on investigating undergraduate students’ perceptions regarding the internship carried out in the classroom with the presence of an external audience at the university (teachers, high school students preparing for the ENEM, and homemakers interested in themes related to language and literature for basic education).

These perspectives point toward and lead to an understanding of the challenges faced in teacher education through the relationship established between school and university on the occasion of the supervised internship.

The article was developed in view of the following mental map of the reality that challenged the faculty members involved in the aftermath work during and after the pandemic.

Table 1

Mental Map of the Reality of Supervised Curricular Internship IV During the Pandemic and in the Post-Pandemic Period



Source: Organized by the professors of the Supervised Curricular Internship IV course.

ABOUT THE LETTERS PROGRAM AT THE ARAGUAIA UNIVERSITY CAMPUS/UFMT AND THE IMPLEMENTATION OF THE SUPERVISED CURRICULAR INTERNSHIP

The Letters Program at the Araguaia University Campus – Federal University of Mato Grosso (2023–2031) has as its primary objective “to prepare professionals qualified in the Portuguese Language and its respective Literatures for the practice of teaching, primarily, at the different stages of basic education” (PPC LETRAS/CUA/UFMT, 2023, p. 16).

In order to achieve this general objective, the Letters Program is structured around the following groups of training:

1st Group of Didactic-Pedagogical Training – aimed at deepening and diversifying studies in the areas of professional practice, scientific, educational, and pedagogical knowledge. The

contents that make up this core are part of 12 pedagogical disciplines in multiple aspects (educational, psychological, anthropological, philosophical, social, historical, cultural, political, and ideological) and provide for a minimum workload of 800 hours, with the purpose of establishing a consistent basis of didactic-pedagogical, professionalizing, and interdisciplinary knowledge, in addition to the LIBRAS course;

2nd Group of General Training for the Letters Professional – composed of disciplines of a scientific-cultural nature corresponding to the contents specific to the field of Letters;

3rd Group of Pedagogical Practices – refers to the Pedagogical Practices distributed among the Supervised Curricular Internships, totaling 400 hours, and the Practice Activities as Curricular Components, with a workload of 400 hours distributed throughout the curricular sequence (PPC LETRAS/CUA/UFMT, 2023, pp. 19–20).

In this text, our attention is focused on the Group of Pedagogical Practices, directing our gaze especially toward the course Supervised Curricular Internship IV, given that since the year 2021, in semester 02, we have been teaching this course jointly.

According to the Regulation of the Supervised Curricular Internship (PPC LETRAS/CUA/UFMT, 2023, pp. 145–171), “the Supervised Curricular Internship is the moment that makes possible the integration between the academic space and the spaces of Basic Education, favoring the development of didactic-pedagogical strategies.”

The organization of the ECS IV course is as follows:

Supervised Curricular Internship IV – Portuguese Language and Its Respective Literatures (112 hours): the student-intern will be assigned to the school field site in order to carry out the teaching internship. The teaching internship presupposes the planning and execution of classes in classrooms of Elementary Education, from the 6th to the 9th year, and Secondary Education (PPC LETRAS/CUA/UFMT, 2023, p. 149).

Our experience of “daring” as Professors of Supervised Curricular Internship was, in a certain sense, “forged” from the context of the COVID-19 pandemic, when UFMT adopted remote teaching from

the year 2021 onward, more specifically for the implementation of semester 2021-2. Considering the pandemic moment and the need for remote teaching, we reflected extensively on “how to make Supervised Curricular Internship IV happen, since its syllabus indicates ‘the teaching of Portuguese Language classes for Elementary Education, from the 6th to the 9th year, and Portuguese Language and Literature for Secondary Education,’ at a time when all Basic Education schools were also operating remotely.” Since then, the course has been conducted each semester through Teaching Projects that subsequently generate an Extension Project.

It is important to clarify that the Teaching Project is designed so that the development of the course and the Extension Project deriving from the Teaching Project are organized in such a way that the public from outside the UFMT community can participate as attendees and receive certification.

THE PANDEMIC AND SUPERVISED CURRICULAR INTERNSHIP IV IN SEMESTER 2020/2

The experience with the course Supervised Curricular Internship IV – Portuguese Language and Its Respective Literatures in the Undergraduate Program in Letters – Portuguese Language and Portuguese Literature has taken place as follows:

- Year 2020 – semester 02 – remote teaching
- Year 2021 – semester 02 – in-person teaching
- Year 2022 – semester 02 – in-person teaching

This experience was highly impactful due to the need to work with different methodologies over 01 (one) semester of remote teaching and 02 (two) semesters of in-person teaching. Undergraduate Student A³ 1 recalls the period of ECS IV taught remotely as follows

³ The interns are listed in this text using letters of the alphabet.

When the course began, in-person classes were suspended in state schools because a considerable number of people had not yet been fully immunized, including the Letters students. Therefore, it was not possible to develop classroom teaching practice within schools. In this way, it was suggested that the course would be carried out within the framework of an extension and teaching course, offered to the general public, addressing a wide range of topics within the Portuguese Language (Intern A).

The context of the COVID-19 pandemic required classes to be remote, which meant that the course Supervised Curricular Internship IV, offered in the 8th semester of the Letters Program, became an immersion of the intern outside the classroom in the strict sense.

The internship should have taken place in a classroom of a public school in order to carry out the classroom teaching internship in Portuguese Language classes (in Elementary and Secondary Education) and in Literature (in Secondary Education). Thus, after having completed, in the ECS I, II, and III courses, the immersion in the host school in the form of observation of the school as a whole and the semi-teaching internship, accompanied by a school teacher and supervised by a UFMT professor, in this course the student would carry out their teaching participation in real classrooms.

Supervised Curricular Internship IV 2020/2 was developed between June and October 2021, in the context of the COVID-19 pandemic, social isolation, and remote teaching.

Because of the pandemic situation caused by COVID-19 and social distancing, the course, in compliance with the determinations of health organizations and the internal regulations of the Federal University of Mato Grosso at the time, especially CONSEPE Resolution No. 60 of September 28, 2020, CONSEPE Resolution No. 84 of December 11, 2020, and CONSEPE Resolution No. 87 of December 17, 2020, had its activities carried out in digital space through digital information and communication technologies (DICT).

Under typical circumstances, during this course, undergraduate students would enter classrooms in public schools and conduct their teaching practice in Portuguese Language or Literature classes for elementary or secondary students.

However, considering that even public schools, at that time, were conducting their activities remotely, it became bureaucratically unfeasible to carry out the students' practical activities.

Because of this situation and the urgency of graduation progress, the practical component of the course developed the Project **“Aspects of Language – Review, Updating, and Reflections on the Portuguese Language and Literatures in the Portuguese Language at the Elementary and Secondary Education Levels.”** The project was approved by the Collegiate Body of the Letters Program at UFMT/CUA in May of that same year. As previously stated, this Teaching Project generated an Extension Project, considering the participation of the external community as course attendees.

The proposed project, in view of the peculiarities of the pandemic situation, was developed on the basis of Resolution No. 87/12/2020, which established the regulation of the flexibilization of curricular components on an exceptional and temporary basis and the development of teaching-learning strategies through information and communication technologies and other instruments as a substitute for and/or complement to face-to-face strategies.

Considering the focus on activities related to Language and Literature—the degree areas of the Letters Program at CUA/UFMT—the theoretical framework for the work developed in the course was conceived as presented below.

The Letters Program/CUA/UFMT, in its Pedagogical-Political Project (2019–2028, p. 07), indicates that “the Pedagogical Project of the Letters Program is grounded in a conception of language that links manifestations of language to multiple and heterogeneous social practices and to the knowledge fundamental to human integration in society.” From this consideration, which elects language as the guiding axis of its organization in the PPC, it is important to understand and make clear, in the context of the activities of ECS IV, the conception upon which the developed activities were based.

Based on studies by Luiz Carlos Travaglia (1996), the conception of Language that guided the development of the project was “Language as a form or process of interaction” (Travaglia, 1996, p. 23).

In conceptualizing Language under this conception, the author states that:

In this conception, what the individual does when using language is not merely to translate and externalize a thought, or to transmit information to another person, but rather to perform actions, to act, to operate upon the interlocutor (listener/reader). Language is, therefore, a place of human interaction, of communicative interaction through the production of meaning effects between interlocutors, in a given communicative situation and in a socio-historical and ideological context. Users of language, or interlocutors, interact as subjects who occupy social positions and “speak” and “listen” from those positions according to imaginary formations (images) that society has established for such social positions (Travaglia, 1996, p. 23).

The National Common Curricular Base (BNCC, 2017, p. 61) states that human activities are carried out in social practices through different languages: a) verbal – oral or visual-motor, such as Libras, and written; b) bodily; c) visual; d) sound; and e) digital. By means of these practices, people interact with themselves and with others, constituting themselves as social subjects. In this way, within the framework of the BNCC (2017), Language studies, encompassing Portuguese Language and its Literatures, should: “[...] understand language as a form of interindividual action oriented toward a specific purpose, a process of interlocution that takes place in the social practices existing in a society, at the different moments of its history (PCN, 1998, p. 20).”

The BNCC (2017) proposes the text as the central focus of studies in its proposal, as the unit of work, always relating it to its contexts of production and reflecting on the development of certain skills and on the meaningful use of language. This is always done through reading, listening, and text production activities in varied moments and situations of use.

In this same perspective of the BNCC (2017), the component Portuguese Language and its Literatures should provide students with experiences that contribute to the expansion of literacies, enabling meaningful, critical, and conscious participation in the most diverse social practices permeated by orality, writing, and other forms of language.

Thus considered, the Teaching Project based its theoretical and practical framework on the axes of integration selected by the BNCC (2017) for studies in Portuguese Language and its Literatures: reading, text production, orality, and linguistic/semiotic analysis. Having presented the theoretical bases of the project, the following contents were publicized:

Table 1

List of topics presented by the pairs, with their respective presentation dates

Language Functions	07/15/2021
What Is a Text	07/22/2021
Textual Genres	07/29/2021
Text Typologies	08/05/2021
Poetry in Brazilian Music	08/12/2021
The Comic Strip as a Textual Genre	08/19/2021
Presentation and discussion of a work of regionalist literature	08/26/2021
Presentation and discussion of a work of children's and young adult literature	09/09/2021
Presentation and discussion of a Parnassian poem	09/30/2021
Presentation and discussion of a short story	10/07/21

Source: Individual notes from the professors of the course.

The objective was directed toward carrying out reflections, discussions, and thematic and interpretive analyses of aspects of verbal, non-verbal, and multimodal language, in the context of studies in the Portuguese Language and its Literatures. The specific objectives were the same as those set out in the teaching plan, namely: ECS IV students should: 1- Discuss with the ECS IV Professors the content proposal for the development of the Teaching Project in the course; 2- Prepare, under the guidance of the Internship Professors, Lesson Plans for the development of the contents defined for the groups within the Teaching Project of the course; 3- Develop, within the Teaching Project of the course, the content assigned to their group, in synchronous classes, for the participants of the project; 4- Carry out a self-assessment process regarding their participation in the development of the ECS IV Teaching Project.

The methodology of the project, considering the context of the COVID-19 pandemic, which at that moment required social distancing, was developed remotely, with synchronous meetings on Thursdays from 7:00 p.m. to 10:30 p.m., totaling 3.5 hours. In addition, an asynchronous weekly activity of readings and studies was conducted, accounting for another 3.5 hours, totaling 7 hours per week.

Communication took place via e-mail, WhatsApp groups, and meetings through the Google Meet application. The written activities developed by the participants were sent by e-mail, corrected and commented on by the execution team, and returned to each participant.

The evaluation process took place taking into account that it should be formative, continuous, and ongoing, and occurred as follows: a) in the weekly study meetings, informal evaluations were carried out regarding what had been productive and what had not, in order to seek improvements for subsequent meetings; b) formal evaluations were also carried out, aiming at the proper education of the project participants; c) at the end of the project, participants carried out evaluative discussions on the activities developed, involving the axes of reading, text production, orality, and linguistic/semiotic analysis.

The aforementioned project retained as supervising professors the same professors who were already supervising the course, assisted by the undergraduate student Valéria Oliveira Vasconcelos, enrolled in the course and a volunteer scholarship holder in the extension project.

The target audience consisted of teachers and staff from public and private schools and members of the community whose interest was aroused by the respective field of knowledge. The meetings took place at 7:00 p.m. on Thursdays, with an expected end time of 10:00 p.m., in institutional Google Meet rooms; the classes were recorded; and all these activities were carried out between June 14 and October 15, 2021.

OPENING CLASS AND THEORETICAL FOUNDATIONS FOR THE DEVELOPMENT OF THE INTERNSHIP

The opening class took place on 07/08/2021 and was taught by the supervising professors. Professor Maria Claudino's class was entitled "In the Beginning Was the 'Word': Language and Its Importance in People's Lives."

The theoretical framework of this class was developed from studies by authors such as Marilena Chauí (2002), Travaglia (1996), and others, which enabled reflections on the importance of

Language, understood as “a form or process of interaction.” In this conception, according to Travaglia (1996, p. 23), what the individual does when using language is not

[...] merely to translate and externalize a thought, or to transmit information to another person, but rather to perform actions, to act, to operate upon the interlocutor (listener/reader). Language is, therefore, a place of human interaction, of communicative interaction through the production of meaning effects between interlocutors, in a given communicative situation and in a socio-historical and ideological context.

Based on the studies of Marilena Chauí (2002, p. 72), we understood in that class that, according to Plato, in his Dialogue Phaedrus, Language is a *pharmakon*. This Greek word, which in Portuguese is translated as *potion*, has three main meanings: *remedy*, *poison*, and *cosmetic*. In other words, Plato considered that language can be:

- 1- *Medicine*: because, through dialogue and communication, it is possible to discover ignorance and learn from other people;
- 2- *Poison*: when, through the seduction of words, people are led to accept, fascinated, what they see or read, without asking whether such words are true or false;
- 3- *Cosmetic*: when it disguises or conceals the truth.

From these assumptions, the discussions were directed toward understanding that Language is the basis of human essence and, therefore, can be *knowledge-communication*, but it can also be *enchantment-seduction*, depending on how it is used.

Professor Odorico (Kiko) continued the class by presenting “Language for Paulo Freire.” He began by displaying the master’s biography, his works, and his importance for education in Brazil and worldwide. The patron of Brazilian education is globally recognized and studied by the leading research and educational institutions in the world. Paulo Freire knew the importance of Language in teaching practice and that it contributed to motivating and involving students in practices of reading the world. However, he also knew that much still needed to be questioned and debated in order to make the

Portuguese Language and its exercise of language more inclusive.

THE ACTIVITIES CARRIED OUT

The undergraduate students were initially introduced to the Project “Aspects of Language – Review, Updating, and Reflections on the Portuguese Language and Literatures in the Portuguese Language at the Elementary and Secondary Education Levels” and to the role they would perform through their practices in the internship course. They were informed of the quality requirements they were expected to meet at each session in order to achieve a standard of excellence in the activities.

Considering the centenary of the birth of educator Paulo Freire (09/19/1921), patron of Brazilian education, who, among many contributions to Pedagogy, left us the legacy of critical education, that is, an education whose objective is not to form an individual for a competitive labor market, but rather an individual who questions the world of work into which he or she was born, with the potential to change reality through peaceful, democratic, lawful means. Initially, the students were required to produce the textual genre of the pedagogical letter. Subsequently, due to the workload accumulated during the semester, this requirement was withdrawn.

However, Paulo Freire remained linked to the discourse of the presentations, especially because the perspective of the Bolsonaro government, in several public statements, campaign speeches, and official communications, declared its intention to expel this author from the position of patron of Brazilian education (Moncau, 2021).

In the week of the presentation, the content was sent in advance to the professors of the course so that they could evaluate the prepared material, making corrections, recommendations, suggestions, and indicating adjustments. At another moment after the presentation, the pair received the evaluation report.

“PAULO FREIRE: EDUCATION, PEDAGOGICAL LETTERS, AND SUPERVISED CURRICULAR INTERNSHIP IV”

The dossier **“PAULO FREIRE: EDUCATION, PEDAGOGICAL LETTERS, AND SUPERVISED INTERNSHIP IV”** emerged from the development of an idea adapted to the course **SUPERVISED CURRICULAR INTERNSHIP IV - Portuguese Language and Its Respective Literatures**, taught in the Undergraduate Program in Letters: Portuguese Language and Portuguese Literature at the Araguaia University Campus, in the 2020/1 period.

The idea developed throughout the course was directly linked to the pandemic, since the classes were held in person, but it was not possible to go to schools so that undergraduate students could carry out their activities. Thus, the coordinators proposed the implementation of an extension project entitled **“ASPECTS OF LANGUAGE – REVIEW, UPDATING, AND REFLECTIONS ON THE PORTUGUESE LANGUAGE AND LITERATURES IN THE PORTUGUESE LANGUAGE AT THE ELEMENTARY AND SECONDARY EDUCATION LEVELS.”**

Alongside the development of the course and the project, in order to commemorate the centenary of Paulo Freire, the drafting of pedagogical letters was proposed based on the experience of carrying out teaching practice in a pandemic context, addressing the interweaving of the act of being a teacher and taking into account the theorization that supports the practice of language use, text, interfaces with literature, and textual genre(s). A calendar was established for letters that could be written both by undergraduate students and by course participants.

Writing the letters was not mandatory for either the undergraduate students or the participants. The proposal indicated that the organization of the dossier would publish the letters in *Revista Panorâmica* of the Araguaia⁴ Campus. The organizers of the publication were Professor Maria Claudino, Professor Odorico Cardoso, and the volunteer scholarship student Valéria Vasconcelos.

⁴ The Pedagogical Letters were published in **Revista Panorâmica**, vol. 3 (2021): Special Issue—100 Years of Paulo Freire: Healing and Hope in the Araguaia

Those challenged to draft the letters were given deadlines to write them, send them to the coordinators, and receive proper guidance. There were at least two rounds of feedback on the eight (08) letters received and published, since they were deemed to have the academic merit necessary to be included among the publications of Revista Panorâmica.

Professor Fernanda dos Santos Paulo (2022), PhD in Education from the University of Vale do Rio dos Sinos/Unisinos and specialist in Paulo Freire, honored us with the preface to our dossier, in which she states:

It is important to emphasize that, throughout the Pedagogical Letters, the concern of the female and male authors is to present an epistemology of praxis, whose dimension of the socialization of experiences calls us to produce knowledge for humanization. Education that liberates and humanizes starts from concrete, creative, critical, engaged, transformative actions, for this is how we nourish our praxis on a daily basis. Writing Pedagogical Letters is a process of liberation in relation to historical forms of knowledge production. It is a possibility of Liberation in the face of the oppression imposed by the colonial, banking, and instrumental university and school.

The authors of the pedagogical letters, among undergraduate students and participants, were as follows: Laide Lizzi, Lidiane Bastos Silva, Maria Claudino da Silva, Odorico Ferreira Cardoso Neto, Aquiles Vidal Costa (pseudonym), Liliane Alves Madureira Ribeiro and Wellen Saldanha, Rayssa Alves de Oliveira and Valéria Oliveira Vasconcelos, and finally, Weides Conceição de Oliveira Lima.

Lastly, as coordinators of the project **“ASPECTS OF LANGUAGE – REVIEW, UPDATING, AND REFLECTIONS ON THE PORTUGUESE LANGUAGE AND LITERATURES IN THE PORTUGUESE LANGUAGE AT THE ELEMENTARY AND SECONDARY EDUCATION LEVELS,”** and as professors of the course **“SUPERVISED CURRICULAR INTERNSHIP IV,”** they thanked the commitment of the undergraduate students, the course participants, and the volunteer scholarship student **VALÉRIA OLIVEIRA VASCONCELOS** (also project coordinator), our **associate editor** of Revista Panorâmica, Dr. Egeslaine de Nez, Federal University of Rio Grande do Sul (UFRGS), School of Education (FACED), for all the support that enabled us to publish the pedagogical letters, for the dedication of each and every person involved, for having worked with nearly 60 people over four

months, for demonstrating all our resilience, for having produced pages so poetic, so full of realities, so dense and tense with dreams dreamt together in which the dream imitates reality and not the other way around.

Academic victory is the victory of reason over ignorance; of science over denialism; of life over death; of hope over frustration; of empathy over apathy. Education moves us, enables us to transcend, to radiate good news, to hold before us the horizon of peace over the dreadful darkness of war; therefore, resistance is necessary. We wish to spell out that another world is possible because the dream never dies.

UNDERGRADUATE STUDENTS' TESTIMONIES ABOUT THE IMPLEMENTATION OF THE SUPERVISED CURRICULAR INTERNSHIP

For Intern B (2020):

[...] supervised internship IV contributed to my teacher education by making me reflect on theory and practice, together with the daily challenges faced in the school environment. It also helped me understand more fully what it means to Be a Teacher, the responsibilities involved, and, above all, the importance and contribution of the teacher to society. Thus, the internship enabled me to think about an education that goes beyond the “banking” model, as Freire (1996) calls it, one that is not based on the deposit of knowledge, but that contextualizes it in such a way that it relates to the students’ interests and reality. According to Luckesi (1994, p. 38), education has the responsibility of adapting the individual to society, ensuring the integration of all into the social body. (sic)

Undergraduate Student C (2020) emphasized the importance of the extension project:

[...] the suggestion that we take part in the Project “Aspects of Language – Review, Updating, and Reflections on the Portuguese Language and Literatures in the Portuguese Language at the Elementary and Secondary Education Levels,” while we were developing curricular components, was the best solution to avoid delays in our graduation, and having people interested in what we had to say and willing to discuss the proposed topics was a comfort in difficult times.

Intern D (2020) analyzes that

[...] future teachers see in the internship during the teaching phase the possibility of producing their professional identity, since the internship is a tool that supports their education and gives them security to practice the profession properly, allowing, through experience, the future teacher to understand and learn more and better. (sic)

Intern E (2020) infers that:

The practice of doing an internship is of fundamental importance for understanding the reality of teaching practice and, above all, the difficulties that teachers may encounter when teaching classes, considering that students have different social, cultural, and economic realities. What is the challenge? To be able to prepare classes that take these differences into account. In this sense, the situations experienced during this new version of the internship in the face of the pandemic served as a new form of professional preparation, especially with regard to technological methodologies. As future teachers, we were forced to learn how to deal with this, but I consider it a positive aspect brought by the pandemic: undergraduate students had the opportunity to work with technological tools of their own choosing in order to produce a class suited to the reality in which we live.

From the statements of the interns in the ECS IV course, it can be observed that carrying out the course in the context of the COVID-19 pandemic imposed certain challenges and learning experiences, such as understanding aspects of teacher constitution in a pandemic situation, in which social distancing was imposed, while at the same time there was the need to carry out a practical component of the Letters Program in which it was necessary not only to draw upon technical-scientific, pedagogical, and practical knowledge, but also to know how to deal with the technologies required for remote teaching.

In the next part of this article, we will discuss how this same format of Supervised Curricular Internship IV was carried out in person.

FROM REMOTE CLASSES TO THE RETURN TO IN-PERSON INSTRUCTION – THE CONFIGURATION OF SUPERVISED CURRICULAR INTERNSHIP IV CLASSES

After the end of the period of remote classes at UFMT, the ECS IV course was then carried out in person in 02 (two) academic semesters: 2021-2 and 2022-2. As professors of the same course, we

maintained the format of developing a Teaching Project, which also becomes an Extension Project, aimed at serving participants from the community.

The Teaching and Extension Projects were entitled as follows:

- In 2021-2 – Language, Reading, and Literacy: discussions, updates, and reflections;
- In 2022-2 – Studies in Portuguese Language and Literature at the Elementary and Secondary Education Levels.

It is important to record that the projects, both teaching and extension, are theoretically and practically grounded in the studies of Luiz Carlos Travaglia (1996), under the conception that assumes “Language as a form or process of interaction” (Travaglia, 1996, p. 23). Thus, all discussions, guidance, and reflections that direct the practice of teaching lessons are oriented toward the need to promote Language as the basis of human essence and of interaction among interlocutory subjects. This is especially important so that the student teachers, when teaching their content, are clear and do not forget that in the process of didactic transposition they should stimulate and value the participation and contributions of course participants in all classes, moving away from the methodological context of merely expository moments, in which only the teacher assumes and has the right to the floor.

With regard to the number of enrollees, in the face-to-face modality the two projects together totaled 105 (one hundred and five) enrollments. However, in relation to effective attendance, a decrease in presence was noted, which we understand in light of the following issues:

- 1 - At the beginning of the pandemic moment, many people were resistant and felt unable to participate in remote classes due to factors such as lack of skill in dealing with technologies and financial difficulties in obtaining technological equipment such as computers and internet access;
- 2 - Over time, people gradually organized themselves, understood how communication technologies functioned, and little by little became able to participate in courses with remote

classes, which led them to understand that, in their own homes, without having to travel elsewhere, they could study and participate in continuing education moments;

- 3 - With the transition from the pandemic context to the post-pandemic period, the situation was reversed, and at this point people showed a certain resistance to returning to participate in face-to-face courses.

With the implementation of the projects in the face-to-face modality, we realized that many people enrolled, attended some meetings, and then justified their absences for various reasons, among them the difficulty of traveling weekly to the Araguaia University Campus.

The contents worked on in the ECS IV projects were designed in order to:

- a) carry out reviews, updates, discussions, and reflections on the various themes from a perspective of practicing Language as a form of human interaction;
- b) assist students preparing for the ENEM;
- c) promote moments of interaction between the university community of the Letters Program and the community external to UFMT.

Thus, the contents worked on were as follows:

- Language Functions
- What Is a Text
- Textual Genres
- Text Typologies
- Poetry in Brazilian Music
- The Comic Strip as a Textual Genre
- Presentation and discussion of a Work of Regionalist Literature
- Presentation and discussion of a Work of Brazilian Literature
- Presentation and discussion of a Work of Children's and Young Adult Literature
- Symbolism in Brazilian Literature

- Presentation and discussion of a Short Story

These contents were presented to the ECS IV interns in a broader, more general way, as can be seen, so that they could think about delimiting each theme and prepare a Lesson Plan to be taught in one clock-hour. Once again, as in the remote modality, they were instructed to understand deeply the theme assigned to each pair, to use teaching strategies that would move away from merely expository classes toward dialogic classes, valuing intern/participant interaction and the use of active methodologies.

THE VOICES OF THE INTERNS ABOUT THE IMPLEMENTATION OF ECS IV IN THE FACE-TO-FACE MODALITY

The students of the Supervised Curricular Internship IV course over the last 03 years took with us the Supervised Curricular Internship III course, which is preparation for the teaching phase. Thus, in semi-teaching practice they plan the contents, prepare Lesson Plans, teach classes to their classmates, and receive feedback with comments, corrections, recommendations, and suggestions for future classes.

We consider it important to present some of their statements regarding the teaching phase in the face-to-face modality, which takes place in ECS IV, seeking to develop some reflections on this stage of the internship.

Intern F (2021) states that:

In fact, theory is not the only tool that will form a good professional. There is even a popular belief that, in order to be a teacher, one must know all the content of a given science. However, it is not enough to know only theory, or a large part of the contents; training must also occur through reading, carrying out projects, exchanging experiences, investigating one's own practice, and reflecting on past and present experiences as a student in contact with other people. (sic)

Her statement shows a clear understanding of the importance of theory in teacher education, but at the same time an awareness of the need for practice and for the exchange of experiences with other people. The implementation of the teaching phase through an Extension Project directed toward the community is an excellent opportunity for this learning to be consolidated.

Regarding the Extension Project, let us consider the statements of some interns:

During our internship classes, we had the pleasure of teaching an extension course for the community. This course was of great importance in our teaching-learning moment because, when we taught something, we learned much more. Through this form of internship, we were able to bring the community into our reality as undergraduates and were able to place ourselves within the reality of each course participant. (sic) (Intern H, 2021)

All the pairs and trios, from my point of view, were very dynamic and their classes were very engaging, capturing the attention of both course participants and undergraduate students and thereby involving them in each proposed class. The new methodology used, namely the Extension Project for the Teaching Internship, I affirm, was a great learning experience and a great responsibility.

The use of methodologies different from traditionalism made the classes more participatory, which led students to understand clearly the contents taught by each pair and trio of teaching interns, building a challenging, diverse, and engaging work.

Teaching Internship IV was of great value so that we, teachers in formation, could develop skills known only in the theoretical field, contributing to our professional growth by allowing us to become acquainted with the reality of our future field of activity. (sic) (Intern I, 2021)

In Supervised Curricular Internship IV (ECS IV), taken in the eighth semester, we continued the theme that had already been worked on virtually, but now in person and with the addition of an external audience, for whom the course functioned as an extension course. [...] On the other hand, teaching an in-person class in ECS IV for my classmates and an external audience initially made me somewhat afraid, but on the day of the class I realized that I was very comfortable and was able to teach the content confidently. Looking at people while speaking and getting feedback from them through their looks, expressions, questions, and so on, gave me more confidence and helped me assess whether I could move forward, stop, move on to the next topic, or ask a question. At the end of the class, I said to myself and to my classmate that that day's face-to-face class, with the internal and external audience of ECS IV, was the one in which I felt most comfortable. It was a motivating experience that broke through many insecurities I had about teaching people I did or did not know. (Intern J, 2021)

The course Supervised Curricular Internship IV was highly relevant for improving our knowledge, since we are having contact with the practical part of the Internship. In my case, unfortunately, during the four years of the course I did not have the opportunity to enter a real classroom (elementary and secondary education) in order to observe and understand the reality of students. The teaching practice carried out for the Extension Project course allowed me to gain a small perception of expectation versus reality, that is, of what awaits me as a future educator. I was able to observe and understand a little of how classes do not follow a single standard, and that changes may occur at any moment, and the teacher needs to have flexibility in order to guide students appropriately. (Intern K, 2021)

Based on these statements, we observe some reflections made by the interns:

1. one of the ways in which a teacher “learns” and “grasps” teaching is by teaching classes;
2. it was important to have the participation of community members in the ECS IV classroom, in an Extension Course;
3. the interns strove to conduct creative, dynamic, attractive classes using active methodologies;
4. the teaching phase carried out in ECS IV enabled interns to understand the unity that must necessarily exist between theory and practice and that, many times, occurs in a way in which theory comes first and only afterward does practice come;
5. the fact of having to teach face-to-face classes in ECS IV for an audience external to UFMT and even for classmates, after a long period of remote classes, was both challenging and motivating;
6. the participation of the course participants during the classes enabled greater self-confidence, contributing to the process of constituting the teaching profession;
- 7- initial teacher education improves teacher constitution through the ECS IV course, since it is a “practical part” of the education of future teachers;
- 8- the student interns are clear that their “expectations” do not always coincide with “reality” when teaching real classes, because these classes do not “follow a single standard.” Changes can and will occur at any moment, and for that reason the teacher must be prepared.

Most of the statements presented here recall a “very old” issue that has already been extensively discussed, namely the theory/practice dichotomy, which still occurs in many higher education courses.

Regarding this, Donaldo Schön states:

The professional schools of the modern, research-based university are founded on technical rationality. [...] Thus, the normative professional curriculum presents first the relevant basic science, then the relevant applied science, and finally a practical teaching space in which students are expected to learn to apply research-based knowledge to the problems of daily practice (Schön, 2000, p. 19).

It is clear that the interns, when carrying out the teaching phase, “conclude” that there is an overvaluation of technical and theoretical knowledge to the detriment of practical knowledge. By carrying out the teaching phase within an Extension Project, they are able to understand important issues concerning their initial teacher education. This resembles what is thought within the paradigm of the Reflective Teacher (Schön), as opposed to the paradigm of Technical Rationality (Schön), already presented above.

According to Souza, Cunha, Müller, and Reinholtz (2018, p. 30):

The paradigm of the reflective teacher has its origins in the first half of the twentieth century, based on John Dewey and his ideas concerning reflective thought allied with the educational process. In his many studies, Dewey defended the importance of reflective thought and the role of reflection. According to this author, we reflect on a set of things in the sense of thinking about them, but analytical thought is only possible when there is a real problem to be solved. Thus, the capacity for reflection emerges when there is a problem to solve, when there is an obstacle to overcome. The existence of critical or reflective thinking only occurs in the face of reality as it imposes itself, insofar as the goal is to form a “reflective professional.”

Still according to these authors, from the 1980s onward, Schön, based on Dewey’s thought, deepened studies on the Reflective Teacher, one who is prompted to think about their own practice, questioning it, rethinking it, and reflecting upon it in order to go beyond it.

In the interns’ statements below, we can observe moments in which they “configure” themselves as Reflective Teachers, based on what they think about their supervised internship practice:

At the end of each teaching practice, we were evaluated by the professors of the course. Every observation they made about the act of teaching allowed us to identify which aspects we needed to pay closer attention to and to make some adjustments when teaching a class. It is worth emphasizing that the feedback given by Professors Maria Claudino and Odorico was timely for our teaching and learning process in the academic education of the Letters Program (Intern I, 2021).

Class 1, taught with my classmate E, took place right after the period of separation imposed by sanitary safety protocols due to the SARS-CoV2 pandemic. She and I had already taught classes together, but all of them had been online. Classes in that format made me very uncomfortable. I did not have the resource of body expression, of exchanging glances with my classmate and, because of that, I never knew when I could, or could not, make any kind of intervention. The face-

to-face class brought me back a very different experience, much better, because I felt comfortable. The interaction with my classmate flowed in a confident way. We worked on the “functions of language.” Concepts and examples were articulated in such a way that they dialogued with the reality of the group. We began and concluded the class with a chronicle by Fernando Sabino. At the end, the students were encouraged to identify occurrences of textual markers indicating the use of this or that function of language in the text. Regarding interaction with the external community, I highlight the importance of having to think of ways to contextualize for adults, some of whom were even teachers. During Internships II and III, the classes were, in a certain sense, fictitious. We taught classes to our classmates and professors; there was a kind of “comfort zone” sphere (Intern L, 2021).

Thus, we realize that being an educator goes far beyond teaching content in a technical manner. Before anything else, it is necessary to establish a teaching-learning method capable of sowing in students the desire for knowledge, and, above all, it is necessary for them to learn and master the contents, now possessing, after two years in front of computer screens, one more important element to help them: the use of technology. It is also necessary to instigate them to pay attention in class and to contribute to effective participation. In addition, the educator effectively cooperates so that students become critical citizens capable of knowing and exercising their rights. The educator also cooperates significantly in the construction of fulfilled future professionals, so that they may exercise their functions with passion. It is worth emphasizing that being a teacher is something subjective; each teacher has their singularity. Thus, in a certain sense, it is in the classroom that their attitudes will be reflected according to their life experiences, and it is incumbent upon the teacher always to be in search of knowledge and constant evolution as a professional. Therefore, the pedagogical practice presented in this course was very fruitful, and experiences were acquired for this new phase that awaits us at the end of the course. Sic. (Intern K, 2021).

The voices presented here portray situations in which one observes an important process of reflection on one’s own practice, whether based on the comments of the professors of the course after each class taught, or through the interns’ own perspectives during the implementation of the class, or afterward, once the internship period had passed, when they were called upon to produce their experience reports on ECS IV.

FINAL CONSIDERATIONS

In the year 2023, beginning in the month of November, we were once again together with the interns of the Supervised Curricular Internship IV course in the Letters Program of the Araguaia University Campus/UFMT. This was our fourth experience working with the teaching phase, based on a Teaching Project for the course and an Extension Project for the community.

The expression “together with the interns” is quite appropriate to the context, because it is a matter of “walking together”; it has to do with the teaching path, with walking across plateau, plain, swamp, and savanna as professors of the ECS IV course, aiming at one of the most important phases of the initial education of Letters students.

This is so because “walking together” implies knowing and being clear that the process of learning involves the interns and us, as professors, as well, in our own teacher constitution.


Some issues have strengthened us as Professors of Supervised Internship over several semesters with the teaching-practice groups. For example, we understand that, as we guide interns in conducting their classes, we more clearly grasp what we need to change or strengthen in our own classes. When we note every detail of their classes and, at the end of each one, talk about what was good or what needs improvement regarding the Lesson Plan, their academic performance, and the presentation and development of the theme, we improve the theory/practice relationship, which students must understand as a relationship in which theory strengthens practice and vice versa. This strengthens the teacher constitution both of the interns and of us, the professors of the course.

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UNIVERSAL DESIGN FOR LEARNING AND TEACHER EDUCATION: PATHWAYS AND OBSTACLES TO EFFECTIVE INCLUSION IN THE EARLY YEARS OF ELEMENTARY EDUCATION

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Abstract

Inclusive education in Brazil, supported by the Brazilian Inclusion Law – BIL (Brasil, 2015) and the National Special Education Policy from the Perspective of Inclusive Education – NSEPI (Brasil, 2008), faces significant challenges in its implementation in the early years of elementary school. This chapter is an analytical literature review that examines the gaps between legal guidelines and pedagogical practices reported in the literature on regular classrooms, focusing on teacher training, curriculum adaptations, and Specialized Educational Support (SES), grounded in the principles of Universal Design for Learning (UDL). Through a critical analysis of national and international academic literature, the study identifies that students with disabilities, although enrolled, often do not actively participate in the learning process due to the lack of inclusive pedagogical strategies and insufficient coordination between SES and mainstream teaching. The results highlight the urgency of continuous and collaborative teacher training and the adoption of UDL practices – still little known in the Brazilian context – as an instrument of curricular transformation. It is concluded that effective inclusion requires not only access to school, but

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also material conditions, reflective teacher training, well-coordinated SES, and integrated public policies, ensuring meaningful learning, participation, and equity for all students.

Keywords: Curriculum Adaptations, Universal Design for Learning, Inclusive Education, Teacher Training, Inclusive Practices, Early Years.

INTRODUCTION

Inclusive education in Brazil constitutes one of the most relevant contemporary challenges for educational systems. Driven by significant legal frameworks – such as the Brazilian Inclusion Law for Persons with Disabilities (LBI) of 2015 (Brazil, 2015) and the National Policy on Special Education from the Perspective of Inclusive Education (PNEE-EI) of 2008 (Brazil, 2008) – the inclusive agenda reaffirms the fundamental right of all students to access, permanence, and meaningful learning in mainstream schools, regardless of their specific educational needs (Souza, 2025a).

However, the realization of this right, especially in the early years of Elementary Education, still faces considerable structural, pedagogical, and educational challenges. The Salamanca Statement (UNESCO, 1994) already indicated, three decades ago, the need for educational systems to organize themselves based on student diversity, affirming that regular schools must adapt through a child-centered pedagogy capable of meeting students' specific needs. Despite this international milestone, recent research reveals a persistent gap between the legal framework and everyday pedagogical practices (Prais, 2020; Zerbato; Mendes, 2021). Data from the 2023 School Census (INEP, 2024) demonstrate a significant increase in the enrollment of students who are the target population of special education in mainstream classes; however, this quantitative increase is not necessarily accompanied by adequate investments in teacher education, infrastructure, and curricular adaptation.

It is thus observed that the physical presence of these students in regular classrooms does not, by itself, ensure their active participation and learning (Souza, 2025a). The persistence of homogenizing

strategies, the lack of accessible pedagogical resources, and insufficient teacher education undermine the principle of educational equity that underlies the inclusive proposal (Prais, 2020; Pereira; Silva; Pinheiro, 2022; Vilas Boas, 2025). In this context, curricular adaptations emerge as a central instrument: according to Sebastian Heredero (2010), these are pedagogical actions intended to make the curriculum more flexible in order to meet students' needs, and not the other way around – a premise likewise proclaimed by the Salamanca Statement (UNESCO, 1994). Vilas Boas (2025) reinforces this understanding by stating that curricular adaptation refers to a set of strategies and pedagogical practices aimed at guaranteeing students' access to the school curriculum through individualized adjustments, ensuring that diversity is valued rather than treated as an obstacle.

In this scenario, Universal Design for Learning (UDL) emerges as a promising theoretical-practical framework. Developed by the Center for Applied Special Technology (CAST), UDL proposes curricular flexibility through multiple means of representation, action and expression, and engagement, with the aim of eliminating barriers from the very design of teaching, thereby promoting meaningful learning for all students (CAST, 2018; Meyer; Rose; Gordon, 2015). Despite its relevance, its implementation in Brazilian schools is still incipient, often limited to individual teacher initiatives or specific projects, without support from systematic public policies (Souza, 2025a; Sebastián-Heredero, 2020). In addition, Specialized Educational Assistance (AEE) constitutes an indispensable support service in this process, responsible for identifying, developing, and organizing pedagogical and accessibility resources that eliminate barriers to the full participation of students with disabilities, and it must operate in articulation with mainstream education (Souza, 2025b).

This chapter aims to analyze the relationship between Universal Design for Learning and teacher education, exploring the pathways and obstacles to promoting effective inclusion in the early years of Elementary Education. To this end, it discusses the theoretical framework of UDL, its interface with teacher education, and the concrete challenges identified in observed pedagogical practices, while also proposing strategies to overcome existing barriers, grounded in the contributions of authors such as Prais

(2020), Zerbato and Mendes (2021), Santos (2024), Schön (1987), and Shulman (1986).

THEORETICAL FRAMEWORK: UNIVERSAL DESIGN FOR LEARNING AND INCLUSION

THE CONCEPT OF UNIVERSAL DESIGN FOR LEARNING (UDL)

Universal Design for Learning (UDL) is a theoretical-practical framework aimed at optimizing teaching and learning for all individuals, regardless of their characteristics, abilities, or conditions. Developed by the Center for Applied Special Technology (CAST) and grounded in research from cognitive neuroscience and the learning sciences, UDL proposes the creation of flexible educational environments capable of anticipating and meeting the diverse needs of students, eliminating barriers from the curriculum design stage (CAST, 2018).

Meyer, Rose, and Gordon (2015) emphasize that UDL is based on the understanding of three primary neural networks involved in learning, each corresponding to one of its foundational principles.

Recognition Networks (the “what” of learning) are responsible for identifying and interpreting patterns, facts, and concepts. They are related to the principle of Multiple Means of Representation, which advocates offering different forms of presenting content – visual, auditory, textual, tactile resources, interactive simulations, and multimodal learning objects – so that students may access information in ways compatible with their learning profiles (CAST, 2018; Meyer; Rose; Gordon, 2015).

Strategic Networks (the “how” of learning) involve the planning, execution, and monitoring of actions and expressions. They are related to the principle of Multiple Means of Action and Expression, which proposes diverse options for students to demonstrate what they have learned – through writing, speaking, creating projects, solving practical problems, using assistive technologies, among other modes of expression (CAST, 2018; Meyer; Rose; Gordon, 2015).

Affective Networks (the “why” of learning) are responsible for evaluating patterns and attributing emotional meaning, interest, and motivation. They are related to the principle of Multiple Means of

Engagement, which seeks to stimulate students' interest and motivation by promoting choice, personal relevance of content, collaboration, self-regulation, and connection with real-life contexts (CAST, 2018; Meyer; Rose; Gordon, 2015).

It is essential to emphasize that, from the UDL perspective, the focus of adaptation falls on the curriculum, not on the student. As the proponents of this framework stress, it is inflexible curricula that erect unintended barriers to learning – not students who possess intrinsic “deficiencies.” The goal, therefore, is to design teaching curricularly so that it is accessible to everyone from the outset, overcoming the reactive logic of individualized and isolated adaptations (Souza, 2025a; CAST, 2018; Meyer; Rose; Gordon, 2015). This perspective will be further developed in the following section, which addresses curricular adaptations and their relationship with UDL.

CURRICULAR ADAPTATIONS: CONCEPT, LEVELS, AND INTERFACE WITH UDL

Curricular adaptations constitute a set of strategies and pedagogical practices aimed at guaranteeing students with disabilities access to the school curriculum through individualized adjustments and modifications, without implying the impoverishment or emptying of content (Vilas Boas, 2025; Oliveira; Machado, 2007). According to Sebastian Heredero (2010), curricular adaptation is understood as any pedagogical action intended to make the curriculum more flexible in order to offer educational responses to the special needs of students in the school context. This definition reaffirms the principle of the Salamanca Statement (UNESCO, 1994): it is the curriculum that must adapt to students' needs, not the opposite.

Eladio Sebastian Heredero, in a 2010 work, systematizes the different levels of curricular adaptations – from minor adjustments, under the teacher's responsibility, to significant modifications involving political-administrative decisions. The author defends a structured model that considers objectives, contents, and pedagogical resources as a condition for making the inclusive school truly effective. This systematization resonates directly with the principles of UDL: whereas traditional

curricular adaptations operate reactively – adjusting the curriculum after identifying the student’s needs – UDL proposes anticipating this flexibility from the planning stage, making the process more efficient and less dependent on isolated interventions. In a later publication (Sebastián-Heredero, 2020), the same author deepens this perspective by systematizing UDL guidelines for the Brazilian educational context, showing that its implementation requires a reconfiguration of teacher planning practices, assessment, and curricular management – and does not represent additional work for the teacher, but rather an intentional and proactive reorganization of teaching, guided by diversity as the norm.

SPECIALIZED EDUCATIONAL ASSISTANCE AND ITS ARTICULATION WITH MAINSTREAM EDUCATION

Specialized Educational Assistance (AEE) is a special education service that identifies, develops, and organizes pedagogical and accessibility resources with the aim of eliminating barriers that prevent the full participation of students with disabilities, global developmental disorders, and high abilities or giftedness in mainstream education (Brazil, 2008). Provided for in the National Policy on Special Education from the Perspective of Inclusive Education (Brazil, 2008) and regulated by Decree No. 7,611/2011, AEE must be offered preferably in Multifunctional Resource Rooms within mainstream schools, in the opposite shift to regular schooling, in a complementary or supplementary manner to students’ education.

Souza (2025b) highlights that AEE has fundamental contributions to pedagogical practice: when well implemented, it acts as a link between the student’s specific needs and the demands of mainstream teaching, providing the regular classroom teacher with strategies, resources, and adjustments that strengthen the participation and learning of the student with disabilities. From this perspective, AEE does not replace regular schooling, but complements it, functioning as specialized support that expands the possibilities of access to the curriculum.

However, the articulation between AEE and mainstream education remains one of the critical knots of Brazilian inclusive education. Souza (2025b) points out that when AEE is reduced to isolated actions in the multifunctional resource room – without systematic dialogue with the classroom teacher and without integration into the class’s pedagogical planning – it loses its transformative potential and comes to function in a parallel, rather than complementary, manner to the schooling process. This lack of articulation directly compromises inclusive outcomes and reinforces the view that responsibility for the learning of students with disabilities falls exclusively on the specialist teacher, exempting the mainstream classroom teacher from co-responsibility.

It is precisely at this point that UDL and AEE intersect and mutually enhance one another. While UDL proposes that curricular flexibility be incorporated from the planning stage – proactively eliminating barriers – AEE offers the specialized knowledge and resources that inform and qualify this flexibility. The articulation between both, mediated by a truly inclusive school culture and adequate teacher education, constitutes the most robust path to guaranteeing meaningful learning for all students (Souza, 2025a; Souza, 2025b; Zerbato; Mendes, 2021).

INCLUSIVE EDUCATION IN THE BRAZILIAN CONTEXT: LEGAL FRAMEWORKS AND CONCRETE CHALLENGES

Inclusive education in Brazil is a right guaranteed by robust legislation, which includes the 1988 Federal Constitution (Brazil, 1988), the Law of Directives and Bases of National Education (LDB) of 1996 (Brazil, 1996), the Brazilian Inclusion Law for Persons with Disabilities (LBI) of 2015 (Brazil, 2015), and the National Policy on Special Education from the Perspective of Inclusive Education (PNEE-EI) of 2008 (Brazil, 2008). These legal frameworks establish inclusion as a fundamental principle, requiring educational systems to guarantee access, participation, and learning for all students without discrimination (Brazil, 2015; Brazil, 2008). Within this framework, two concepts are central and complementary: equality and equity. Whereas equality presupposes offering the same conditions to

everyone, equity recognizes individual differences and provides personalized support so that each student may achieve the same level of participation and educational success – which, in practice, means offering more to those who need more (Vilas Boas, 2025). The guarantee of human dignity and human rights, foundations of inclusive education, requires precisely this equitable stance, which values each student in his or her individual characteristics (Vilas Boas, 2025).

Despite this normative framework, the implementation of inclusive guidelines in everyday practice still presents structural, pedagogical, and educational challenges. The Salamanca Statement (UNESCO, 1994) already pointed out that the development of inclusive schools requires a clear and strong inclusion policy, accompanied by adequate funding, the combating of prejudice, and both initial and continuing teacher education. Decades later, although data from the 2023 School Census (INEP, 2024) indicate growth in full-time enrollments at all stages of basic education, this quantitative increase is not always accompanied by proportional investments in accessible infrastructure and, above all, qualified teacher education (Souza, 2025a).

Research and classroom observations show that, in many cases, the active participation and meaningful learning of students with disabilities are limited by the absence of inclusive pedagogical strategies and appropriate resources (Souza, 2025a; Prais, 2020). Data from research conducted in a 3rd-grade elementary class indicate that 93% of activities were applied without any adaptation, disregarding the specific needs of students with disabilities, and that 85% of the support professional's time was devoted to the mechanical copying of content, to the detriment of strategies that promoted students' understanding and active participation (Souza, 2025a). This situation is corroborated by Pereira, Silva, and Pinheiro (2022), who, in research with 14 teachers from the municipal public school system of São Luís, identified that although the teachers carried out small-scale curricular adaptations, inclusive planning still lacked systematization and consistent criteria – a direct reflection of the gaps in specific training in Special Education, present in only half of the participants.

This reality reveals a dissonance between the inclusive discourse present in institutional documents and the practices actually adopted in everyday school life. Pereira, Silva, and Pinheiro (2022), in research conducted with teachers from municipal public schools, identified that despite teacher engagement with curricular adaptations, gaps in education and in the structural conditions necessary for the implementation of equitable inclusion persist. Souza (2025b) adds that AEE, when well implemented, has the potential to contribute directly to the pedagogical practice of the mainstream classroom teacher through the collaborative development of strategies, resources, and adjustments that strengthen the participation of students with disabilities. However, the articulation between AEE and mainstream education is still inconsistent in many schools, which weakens the expected inclusive outcomes. This scenario underscores the urgency of rethinking both teacher education and the organization of support services in light of UDL principles (Zerbato; Mendes, 2021).

Authors such as Zerbato and Mendes (2021), Sebastián-Heredero (2020), and Santos (2024) have contributed significantly to the discussion on the application of UDL and teacher education in the Brazilian context. The adoption of UDL requires a paradigmatic shift in teacher education, which must be continuous and collaborative, enabling teachers to plan and implement pedagogical practices that anticipate and address student diversity as a premise, rather than as a later adaptation (Zerbato; Mendes, 2021).

TEACHER EDUCATION AND UDL: CHALLENGES AND POTENTIALITIES

INITIAL AND CONTINUING TEACHER EDUCATION FOR INCLUSION

Teacher education constitutes a fundamental pillar for the realization of inclusive education. However, recent research reveals that the initial education of many educators is still insufficient with regard to preparation for dealing with diversity in the classroom (Souza, 2025a; Prais, 2020). The lack of specific subjects on special and inclusive education in Pedagogy programs, together with the predominance of homogenizing pedagogical approaches, contributes to teachers feeling unprepared to

meet the specific needs of students with disabilities (Souza, 2025a). Pereira, Silva, and Pinheiro (2022) reinforce that although most of the teachers surveyed had *Lato Sensu* postgraduate education, only half had specific training in the area of Special Education, highlighting a structural weakness in teacher preparation.

This educational gap results in pedagogical practices that frequently disregard students' specificities, leading to the application of standardized activities for everyone, without the necessary curricular adaptations (Souza, 2025a). Vilas Boas (2025), in line with Mantoan (2003), observes that many teachers, accustomed to a homogenizing work pattern, resist the changes required by inclusion, arguing that they are not prepared to serve students with disabilities – which evidences the need for knowledge of inclusive pedagogical practices to be included as a compulsory curricular subject in teacher education, as also defended by Vitaliano (2012, *apud* Vilas Boas, 2025). Prais (2020), in collaborative research conducted with teachers in the early years of Elementary Education, demonstrates that teacher education and the reorganization of teaching are essential conditions for fostering inclusive pedagogical practices, and that UDL has been referenced as a central tool for the implementation of this agenda.

In this context, the concept of the reflective teacher, proposed by Schön (1987), becomes particularly relevant. The reflective teacher is one who critically analyzes his or her own practice, seeking to understand challenges and opportunities for improvement, which is essential for adapting to the demands of inclusive education. Complementarily, the concept of Pedagogical Content Knowledge (PCK), developed by Shulman (1986), emphasizes the importance of the teacher not only mastering the content to be taught, but also knowing how to make it understandable for different students, considering their particularities. The application of UDL requires that the teacher develop an inclusive PCK, capable of transforming the curriculum into learning experiences accessible to all. In this process, the AEE teacher plays the role of a strategic partner, contributing specialized knowledge that informs and enriches the planning of the mainstream classroom teacher (Souza, 2025b).

According to Gauthier et al. (1998), knowledge of the elements of teacher knowledge that allow teachers to exercise their profession competently is fundamental. In this sense, education for inclusion must be understood as a continuous, reflective, and collaborative process that empowers the teacher to become an agent of change in his or her own practice. Continuing education programs based on UDL must contemplate not only the theoretical foundations of the framework, but also practical strategies for inclusive planning, the analysis of real cases, and the collaborative construction of accessible didactic materials (Zerbato; Mendes, 2021).

Continuing education, in this context, assumes a crucial role. Prais (2020) demonstrates that teachers in the early years of Elementary Education, after a collaborative continuing education process focused on UDL, began to plan and apply the principles of the framework in their pedagogical practices, developing appropriate activities and using didactic resources that favored the learning of all students. Zerbato and Mendes (2021) reinforce that collaborative education, grounded in the exchange of experiences and the collective construction of knowledge among teachers and specialists, is particularly effective for the development of sustainable inclusive practices.

UDL AS A TOOL FOR THE DEVELOPMENT OF INCLUSIVE PRAXIS

Universal Design for Learning (UDL) offers a robust theoretical-practical framework for transforming pedagogical practices and promoting effective inclusion. By proposing multiple means of representation, action and expression, and engagement, UDL enables teachers to create flexible learning environments that address the vast range of students' needs, preferences, and potentialities (CAST, 2018).

When trained in UDL principles, teachers can:

- Make the curriculum flexible without reducing it: UDL allows content to be presented in diverse ways, ensuring that all students have access to information and can understand it, without reducing academic rigor (Souza, 2025a; CAST, 2018). Sebastian Heredero (2010) emphasizes that curricular adaptations, when well structured and applied at the appropriate

levels, have high potential for inclusion – and UDL represents precisely the advancement of this logic, by incorporating flexibility from the very design of teaching rather than treating it as a later adjustment. As reinforced by Oliveira and Machado (2007), such adaptations do not imply the emptying or impoverishment of the curriculum, but rather its reorganization in favor of learning for all.

- Promote the active participation of all students: by offering multiple options for the expression of knowledge and for engagement, UDL encourages the autonomy and participation of all students, including those with specific educational needs (Souza, 2025a; Meyer; Rose; Gordon, 2015).
- Reduce the need for reactive individualized adaptations: by planning lessons that already consider diversity as a premise, UDL minimizes the need for isolated adaptations, making the teaching-learning process more efficient and inclusive from the outset (Souza, 2025a; CAST, 2018).
- Develop inclusive formative assessment practices: UDL proposes that assessment instruments and criteria should also be diversified, allowing students to demonstrate their learning through multiple pathways, in accordance with their profiles (Sebastián-Heredero, 2020).

Concrete examples of the application of UDL in the classroom include: the use of visual and auditory resources to present content (multiple means of representation); offering different formats for completing tasks, such as writing, oral presentation, video recording, or the development of practical projects (multiple means of action and expression); and the creation of activities that stimulate collaboration, choice, and the personal relevance of learning (multiple means of engagement) (CAST, 2018). These practices correspond closely to what Vilas Boas (2025) calls pedagogical differentiation – a strategy that adjusts teaching by content, process, product, and environment, recognizing that each student is unique and has distinct rhythms and learning styles. The author adds that the use of inclusive

educational resources – such as diversified didactic materials, assistive technology, differentiated assessments, and collaborative learning – is an essential condition for all students to have access to meaningful learning. Collaborative consultation, as demonstrated by Santos (2024), may be an effective strategy to support teachers in implementing these practices, resulting in higher academic performance and greater student motivation.

PATHWAYS AND OBSTACLES TO EFFECTIVE INCLUSION IN THE EARLY YEARS

PEDAGOGICAL AND ORGANIZATIONAL BARRIERS

Despite legislative advances and recognition of the importance of inclusive education, the reality of classrooms in the early years of Elementary Education still reveals the persistence of significant pedagogical and organizational barriers. Data from research conducted in a 3rd-grade elementary class recorded that 93% of the activities were applied without any methodological or curricular adaptation, and that 85% of the support professional's time was consumed by mechanical copying tasks, to the detriment of strategies that would ensure the active participation of students with disabilities (Souza, 2025a). Pereira, Silva, and Pinheiro (2022), in research with teachers from the public school system of São Luís, confirmed the same pattern: even when teachers demonstrated engagement with curricular adaptations, the absence of specific education and adequate structural conditions limited the scope and consistency of their inclusive practices. This convergence of findings shows that the problem is not isolated, but structural. Vilas Boas (2025) systematizes the main challenges of curricular adaptation into four axes: individualization – consideration of the unique needs of each student –; the demand for additional resources and time for planning and implementing adapted strategies; the need for alignment with the standard curriculum, avoiding gaps in learning; and the complexity of assessing the progress of students in the adaptation process, which requires equally flexible and diversified instruments.

The way support professionals operate in schools also constitutes an obstacle. The aforementioned research points out that 85% of the support professional's time was devoted to the mechanical copying of

content, to the detriment of strategies that would ensure students' understanding and active participation (Souza, 2025a). This practice, in addition to being pedagogically ineffective, reinforces the idea that inclusion is limited to the student's physical presence, without guaranteeing meaningful learning. This support model, centered on the execution of tasks by the professional in place of the student, may even generate dependence and compromise the development of the student's autonomy (Zerbato; Mendes, 2021). Souza (2025b) points out that AEE, when disconnected from everyday pedagogical practice and reduced to isolated actions in the multifunctional resource room, loses its transformative potential – making it essential that its contributions be systematically integrated into the planning of the classroom teacher and classroom routines.

At the organizational level, the dissonance between inclusive discourse and pedagogical practice is evident. Schools' Political-Pedagogical Projects (PPPs) often formally declare a commitment to inclusion, but analysis of lesson plans reveals a low percentage of activities with methodological or curricular flexibilizations (Souza, 2025a). The Salamanca Statement (UNESCO, 1994) already indicated that the reform of special education and the inclusion of all children in mainstream schools would only be achieved as a result of reform of the educational system as a whole, requiring teachers' curricular autonomy and structured institutional support. Pereira, Silva, and Pinheiro (2022) identified that, although there is teacher engagement in developing curricular adaptations, challenges related to pedagogical education and the structural conditions of schools remain concrete obstacles to the implementation of inclusion. Sebastian Heredero (2010) points out that significant adaptations – those involving deeper changes in the curriculum – require political-administrative decisions, which demands institutional involvement beyond the individual teacher's action. This fragility demonstrates the need for a restructuring of pedagogical planning processes that effectively incorporates UDL principles as a systematic guideline (Sebastián-Heredero, 2020; Zerbato; Mendes, 2021).

Additionally, the absence of an inclusive institutional culture and of pedagogical leadership committed to diversity represents a relevant structural obstacle. The large-scale implementation of UDL requires the engagement of the entire school community – administrators, teachers, support professionals, families, and the students themselves – articulated with public policies that guarantee the necessary investments (Souza, 2025a; Santos, 2024).

STRATEGIES TO OVERCOME THE CHALLENGES

Overcoming barriers to effective inclusion in the early years of Elementary Education requires a multifaceted approach that articulates teacher education, the development of pedagogical resources, and institutional support. The triangulation of data from recent studies points to three priority axes of action (Souza, 2025a; Prais, 2020; Santos, 2024):

Consistent and collaborative teacher education

Extension courses and continuing education programs focused on inclusive strategies and, in particular, on the principles and practices of UDL, are essential. This education must go beyond theory, promoting critical reflection on practice and the development of concrete skills for applying UDL in the classroom (Prais, 2020). Teacher education must enable the teacher to be a mediator who plans intentionally for diversity, using UDL as a systematic guide for this planning. The educational process must be continuous, collaborative, and contextualized, favoring the exchange of experiences among peers and the collective construction of pedagogical solutions (Zerbato; Mendes, 2021; Pereira; Silva; Pinheiro, 2022).

Development and provision of accessible pedagogical resources

The development and provision of accessible and flexible didactic materials are fundamental, encompassing multiple means of representation, action and expression, and engagement. The use of

assistive technologies and multimodal resources – such as interactive simulations, audio description, Braille materials, and Augmentative and Alternative Communication (AAC) – can significantly enrich the learning environment and meet students’ cognitive and sensory diversity (CAST, 2018; Sebastián-Herero, 2020). The development of these resources should be planned collectively, involving teachers, specialists, and, whenever possible, the students themselves.

Institutional support and articulated public policies

The creation of inclusion support centers in schools, with trained professionals able to offer pedagogical support and collaborative consultation to teachers, is crucial for the sustained implementation of UDL (Santos, 2024). In this context, the consolidation of AEE as a service effectively articulated with mainstream education – rather than parallel to it – is an indispensable condition for inclusive strategies to reach the classroom consistently (Souza, 2025b). In addition, public policies that guarantee investment in accessible infrastructure and institutionalize the adoption of UDL as a curricular guideline on a large scale are indispensable for the consolidation of inclusive education in the public education system (Souza, 2025a). Coordination among the federal, state, and municipal levels is fundamental so that UDL principles translate into everyday school practices.

Collaborative consultation emerges, in this context, as a particularly promising strategy for supporting teachers in the implementation of UDL. Santos (2024) demonstrates that collaborative consultation, based on UDL principles, contributes to the development of more inclusive pedagogical practices, resulting in better academic performance and greater motivation to learn among students. This approach allows teachers, with the support of specialists, to review their practices, develop appropriate activities, and use didactic resources that favor everyone’s learning (Prais, 2020; Santos, 2024). Vilas Boas (2025) complements this perspective by listing the concrete benefits of well-implemented curricular adaptations: the promotion of effective inclusion and of a more diversified environment; personalized

learning, which increases student engagement and motivation; the strengthening of students' self-esteem and self-confidence; the overall improvement of the school environment; and the development of resilience and self-management skills that prepare students for future challenges, both academic and professional.

FINAL CONSIDERATIONS

The analysis undertaken in this chapter allows us to affirm that educational inclusion in the early years of Elementary Education is not resolved by decree nor by enrollment alone. It requires an articulated transformation in three interdependent dimensions: teacher education, curricular organization, and specialized support. None of these dimensions, in isolation, is sufficient – and it is precisely the lack of articulation among them that explains the persistence of the gap between Brazilian legislative advances and the reality of classrooms.

Universal Design for Learning emerges, in this scenario, not as just another methodology to be adopted, but as a shift in perspective: from a curriculum that excludes to a curriculum that anticipates diversity. The difference is structural. Whereas traditional curricular adaptations operate reactively – making isolated adjustments to what was planned for a standard student – UDL proposes that flexibility be the starting point of planning, making inclusion a condition of teaching rather than a later correction (CAST, 2018; Sebastián-Heredero, 2020; Sebastian Heredero, 2010). Vilas Boas (2025) and Oliveira and Machado (2007) reinforce that this flexibility, when well conducted, does not impoverish the curriculum: on the contrary, it enriches the learning environment for all students.

For school administrators, the central implication is clear: UDL is not implemented individually. It requires committed pedagogical leadership, revision of Political-Pedagogical Projects, investment in accessible resources, and the creation of systematic spaces for collaborative planning between classroom teachers and AEE teachers. For teacher educators, the challenge is to overcome the dichotomy between theory and practice: continuing education programs need to contemplate UDL not as abstract content, but

as a concrete guide for lesson planning, as demonstrated by Prais (2020) and Santos (2024). For mainstream classroom teachers, AEE must be experienced as a partnership, not as outsourcing responsibility for the learning of students with disabilities (Souza, 2025b).

From the perspective of public policy, the findings of this review point to the urgent need to institutionalize UDL as a curricular guideline on a large scale – and not merely as the initiative of isolated teachers – while simultaneously guaranteeing the material conditions, qualified teacher education, and effective articulation between AEE and mainstream education that make this guideline viable in practice (Souza, 2025a; Zerbato; Mendes, 2021; Pereira; Silva; Pinheiro, 2022). The Salamanca Statement (UNESCO, 1994) proclaimed this commitment more than three decades ago; making it a reality remains the task still awaiting Brazilian educational systems.

For future research, the following are suggested: investigating models of systematic articulation between AEE and UDL in different education systems; developing and validating formative assessment instruments aligned with UDL principles; examining the effects of collaborative continuing education programs on teaching practices in the long term; and analyzing the institutional conditions that favor or hinder the scaling up of inclusive practices based on UDL in public schools. Such investigations will contribute to solidifying the foundations of an education that is, in fact, inclusive, equitable, and meaningful for all.

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THE CHALLENGES OF INCLUSION IN THE CLASSROOM: HOW TO SUPPORT ATYPICAL CHILDREN <https://doi.org/10.63330/aurumpub.046-004>**Eunice Miranda da Silva¹****Abstract**

This article aims to critically analyze the foundations, practices and perspectives transforming inclusive education in the contemporary school context. From a qualitative approach, an in-depth bibliographic review was developed based on authors that discuss the limits of the school as a disciplinary institution, obstacles and advances in Brazilian public policies of inclusion, as well as the challenges faced in teaching and institutional practice. Initially, the normative structure of the modern school is problematized, whose disciplinary logic makes it difficult to welcome differences and reproduces patterns that exclude various subjects. Then, the guidelines of the National Policy of Inclusive Education are discussed, highlighting legal advances and obstacles to its realization in public schools. Finally, there are possibilities for educational transformation from the construction of an inclusive institutional culture that values diversity, promotes the continuing education of education professionals and favors collaborative, democratic and sensitive pedagogical practices to the uniqueness of students. It is concluded that school inclusion goes beyond physical or curriculum adaptation, demanding deep breaks with exclusionary paradigms and the construction of new meanings for education. Only through the political, pedagogical and ethical commitment of school institutions will it be possible to consolidate a truly democratic, equitable and welcoming education for all subjects.

Keywords: Inclusive education, Pedagogical practice, School culture, Institutional transformation.

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INTRODUCTION

Inclusive education is configured as a fundamental paradigm for the construction of a more equitable, democratic, and plural society. In the contemporary school context, debates surrounding educational inclusion gain relevance in light of the urgent need to overcome exclusionary models that have historically marginalized subjects with disabilities, global developmental disorders, high abilities/giftedness, among others. Such an approach seeks to guarantee not only access, but above all permanence, participation, and meaningful learning for all students, valuing diversity as a pedagogical and ethical principle. In this sense, the contemporary school is challenged to reinvent itself through pedagogical practices that respect different ways of learning, recognizing the plurality of identities and trajectories as enriching the educational process (Cândido; De Vasconcelos; Pinto, 2022). Beyond occasional physical or curricular adaptations, inclusive education requires structural, cultural, and didactic-pedagogical transformations that resignify the school's social function and the role of education professionals (Carneiro et al., 2025).

The debate on inclusive education is embedded within public education policies, which over recent decades have been shaped by social struggles, national legislation, and international agreements. The enactment of the National Policy on Special Education from the Perspective of Inclusive Education (2008), along with subsequent normative advances, reflects this movement toward the expansion of educational rights, although its implementation encounters numerous obstacles, such as the shortage of qualified human resources, the absence of continuing education, and institutional resistance to change. The current scenario, however, is still marked by contradictions: while there are legal frameworks that guarantee the right to inclusion, many school practices still reproduce segregating logics, hindering the consolidation of a truly inclusive culture (Lockmann; Klein, 2022). In this context, it is essential to rethink teacher education, the methodologies used in the classroom, and the school's ethical-political commitment to diversity (Santana et al., 2023).

The construction of an inclusive school also requires recognition of the power relations that permeate educational spaces, as pointed out by critical education theory. From this perspective, inclusion is not limited to a set of technical practices, but must be understood as a political and social process that challenges the mechanisms of normalization historically established by school institutions. The modern disciplinary school, structured to homogenize subjects and standardize knowledge, proves incompatible with the demands of inclusive education, which presupposes listening, flexibility, and openness to difference (Amancio; Rodrigues, 2020). Thus, reflecting on inclusive education also requires a critique of the traditional, authoritarian school model centered on decontextualized content, proposing in its place a pedagogy of difference that values the singularities of subjects (Gai; Kroth, 2022).

Despite conceptual and legal advances, the implementation of inclusive education encounters multiple challenges, which raises the following problem: how can the foundations of inclusive education be effectively translated into transformative pedagogical practices in the contemporary school context, ensuring not only access, but also permanence, participation, and the success of all students? This question guides the present investigation, which seeks to understand the complexity of school inclusion from a critical and multidimensional perspective, articulating theoretical, political, and pedagogical aspects.

In view of this context, this study has as its **general objective** to analyze the foundations, practices, and transformative perspectives of inclusive education in the current school scenario. To this end, the following **specific objectives** are established: (1) to identify the main theoretical and legal foundations that support inclusive education; (2) to analyze inclusive pedagogical practices adopted in public schools and their impacts on the learning process; and (3) to reflect on the potentials and challenges involved in building an inclusive school culture in light of critical and democratic perspectives.

The relevance of this study is justified by the urgency of rethinking school structures from an inclusive, humanizing, and democratic logic. In times of social and educational setbacks, discussing

inclusion is not merely a pedagogical necessity, but also an ethical and political imperative. The school must be a space for welcoming, belonging, and the collective construction of knowledge, and for this it is necessary to denaturalize discriminatory practices and propose forms of teaching that respond to the real needs of all students (De Andrade; Pereira; Damasceno, 2020). Furthermore, the education of professionals emerges as a fundamental axis for the success of inclusion, making it necessary to invest in continuing, interdisciplinary, and diversity-committed educational processes (Gomes et al., 2020).

It is important to emphasize that inclusive education is not achieved solely through legislation or isolated public policies, but through the construction of a new educational imaginary that places the subject, in his or her wholeness, at the center of the pedagogical process. This implies considering emotional, social, and cultural aspects as constitutive of learning, restoring the humanizing meaning of education. The valorization of active listening, empathy, and collective co-responsibility are pillars for the construction of truly inclusive school environments (Carneiro et al., 2025; Da Cunha; Andrade; Albuquerque, 2023).

METHODOLOGY

This study is characterized as a qualitative, exploratory investigation grounded in a bibliographic review. According to Gil (2010), bibliographic research is based on the examination of previously published material and is widely used when the objective is to deepen theoretical knowledge about a given topic or problem. In the specific case of this study, a qualitative approach was chosen because the analysis of discourses, ideas, and theoretical foundations concerning inclusive education requires a critical and contextualized interpretation that is not restricted to the quantification of data, but rather to the understanding of meanings, implications, and relationships among the elements analyzed. This methodological option is also justified by the fact that the field of school inclusion requires the articulation of political, social, and pedagogical categories that can only be understood through an interpretive and critical reading of the theoretical frameworks available in the specialized literature.

The search for materials was carried out in academic databases such as SciELO, Google Scholar, CAPES Journals, and institutional repositories, using keywords such as “inclusive education,” “inclusive pedagogical practices,” “contemporary school,” and “educational transformation.” Specific publications by Brazilian authors who stand out in the critical discussion of the topic were also considered, as well as current legal frameworks and educational public policies. As Gil (2010) points out, the bibliographic review must be conducted systematically, allowing the researcher to understand the current state of knowledge on the topic and identify gaps, convergences, and divergences in the frameworks analyzed, which contributes to the consistency of the analysis and the inferences made.

DEVELOPMENT

This chapter develops an in-depth analysis of the institutional and disciplinary foundations that permeate the contemporary school, Brazilian public policies for inclusive education, and the transformative perspectives emerging in the current school reality. Section 3.1 critically examines how school disciplinary logic creates tensions with inclusion; Section 3.2 explores the challenges and practices of the National Policy on Inclusive Education in Brazil; and Section 3.3 discusses the main challenges and possibilities for the effective transformation of schools through an inclusive culture. The text seeks to integrate the theoretical and empirical insights of the selected authors, presenting dense arguments and conceptual articulations in depth.

INSTITUTIONAL AND DISCIPLINARY FOUNDATIONS OF THE SCHOOL AND TENSIONS WITH INCLUSION

In the analysis of Amâncio and Rodrigues (2020), the school is understood as a disciplinary institution that structures everyday school life according to a logic of uniformity, control, and the standardization of knowledge and behavior, whose mechanisms of power establish rigid normative parameters that frequently exclude subjects and forms of learning outside the standard established by the

institution. This modern disciplinary regime operates through routines, hierarchies, and routines that regulate the time, space, and actions of students, limiting the flexibility necessary to welcome individual differences and singular identities, as a hallmark of its exclusionary logic (Amancio; Rodrigues, 2020).

These authors point out that, to be effective, inclusion requires a radical rupture with this disciplinary institutional framework, proposing the reconfiguration of the curriculum, the reorganization of school spaces and times, and the flexibilization of pedagogical practices in order to promote autonomy, participation, and social cohesion within the school environment. They emphasize that the logic of institutional order often prevails over the logic of care and listening, which restricts the possibility of building an inclusive school culture that recognizes and values the singularities of students, especially those with disabilities or specific educational needs (Amancio; Rodrigues, 2020).

According to Amâncio and Rodrigues (2020), one of the main obstacles to inclusion is the persistence of deficit-based conceptions about students with diversity, who are viewed as “problems” to be adjusted to the school system rather than as subjects with potential and their own ways of learning. This pathologizing view reinforces an exclusionary institutional culture, undermining the implementation of differentiated pedagogical practices, curricular adaptations, and sensitive listening to each student’s demands, weakening any inclusive advance that goes beyond institutional formalities (Amancio; Rodrigues, 2020).

In addition, they emphasize that the modern disciplinary school internalizes a culture of power that legitimizes centralized authority and minimizes student-centered protagonism. To subvert this paradigm, it is necessary to establish practices that value co-responsibility among teachers, students, and the school community, fostering democratic spaces for dialogue and collective problematization of norms and knowledge. This implies rethinking teacher education, evaluative strategies, and institutional organization as a whole (Amancio; Rodrigues, 2020).

The disciplinary structure of the modern school imposes substantial limits on the promotion of inclusive education. The traditional school model, grounded in a logic of normalization and

hierarchization, is guided by standards that classify and evaluate subjects based on homogeneous criteria of performance, silencing differences in the name of the standardization of behavior and knowledge. This logic relegates subjects with specific educational needs to marginal positions within the school space, hindering the construction of belonging and meaningful learning (Amâncio & Rodrigues, 2020). Rules of conduct, rigidly organized times and spaces, and the centrality of the teacher as sole authority contribute to making the school a space of control rather than emancipation.

In this scenario, the school often reinforces a pedagogy of exclusion. Instead of recognizing the plurality of knowledge and trajectories that students bring with them, disciplinary logic operates in the opposite direction, promoting the adaptation of the subject to the structure rather than the reverse. Thus, instead of a school that adapts to the needs of its students, what is observed is the insistence on rigid formats that do not engage with the diversity present in classrooms (Amâncio & Rodrigues, 2020). The curriculum is often presented as fixed and universal, ignoring students' singularities and sociocultural contexts.

In addition, assessment instruments become mechanisms of control and exclusion. The standardization of assessment methods, centered predominantly on written exams and objective tests, does not contemplate the multiple forms through which knowledge can be expressed. As a result, students with distinct learning profiles, especially those with disabilities, end up being labeled as unfit or uninterested, when in fact what occurs is the inadequacy of pedagogical practices (Glat, Pletsch & Fontes, 2007). This scenario demonstrates that the obstacles to inclusion are rooted not only in the school's physical structure, but also in the conceptions that guide its organization and functioning.

Another critical point is school management, which often operates in a verticalized manner, centralizing decisions and hindering the construction of a culture of co-responsibility and active listening. The absence of democratic and collaborative spaces among teachers, administrators, students, and families compromises the development of inclusive pedagogical projects. According to Glat et al. (2007),

without participatory management, it is practically impossible to promote an institutional culture oriented toward inclusion, because decisions do not emerge from the real needs of the school community.

The education of teaching professionals is also permeated by this disciplinary paradigm. Most teacher education programs are still based on transmissive teaching models, with little emphasis on diversity, inclusion, and critical reflection. This results in teachers who are insecure and unprepared to deal with the complexity of the inclusive classroom, which reinforces exclusionary practices, even if unintentionally (Greguol, Gobbi & Carraro, 2013). Inclusion requires education that goes beyond technical content, encompassing lived experiences, context analysis, and the development of socio-emotional competencies.

School culture, in turn, is one of the elements most resistant to change. It is nourished by beliefs, values, and attitudes that often reinforce the idea that disability is an insurmountable obstacle to learning. The internalization of these discourses by the school staff contributes to the maintenance of discriminatory practices and to the emptying of inclusion as an educational principle (Gabatz, 2012). Transforming this culture requires not only public policies, but also a continuous effort of education, reflection, and collective listening.

PUBLIC POLICIES AND INCLUSIVE PRACTICES IN THE BRAZILIAN CONTEXT

Araújo (2023) is dedicated to systematizing the National Policy on Inclusive Education, elucidating its normative foundations, institutional advances, and the obstacles that persist in its application in Brazilian public schools. He argues that, although the legal framework ensures the right to inclusive education, including the guarantee of access, permanence, and learning for all students, the concrete materialization of these guidelines depends on adequate infrastructure, prepared professionals, adapted pedagogical resources, and effective interinstitutional articulation (Araújo, 2023).

Araújo's (2023) bibliographic research reveals that, in many Brazilian schools, the implementation of these policies still occurs in a fragmented manner—with instruments such as multifunctional resource

rooms and support professionals that are formally provided for in legislation, but are often absent or poorly integrated into daily pedagogical practices. This gap between normative discourse and school reality reflects mismatches in the operationalization of rights and weakens the transformative character of inclusive policy (Araújo, 2023).

Araújo (2023) also highlights that the continuing education of teachers is essential for policies to be converted into effective practices. Without professionals prepared to work with diversity, inclusive guidelines remain mere formalities, and everyday challenges, such as curricular adaptations, differentiated methodologies, and diversified assessments, tend to be neglected. He argues that inclusive education is only consolidated when teacher education is articulated with consistent institutional and pedagogical support (Araújo, 2023).

Another point emphasized is the need to continuously evaluate and monitor the effects of inclusion policies in schools. Araújo (2023) stresses that few studies have investigated the real impacts of these policies in terms of students' learning, participation, and sense of belonging. The lack of monitoring contributes to implementation becoming superficial and lacking accountability in relation to the legal objectives established.

Araújo (2023) concludes that the true consolidation of inclusive education depends on the articulation between universal policies and local initiatives, involving families, communities, support networks, and democratic management, so that school practices integrate inclusive principles into their institutional culture, and not merely as bureaucratic compliance with legislation.

The construction of a public policy of inclusive education in Brazil is a complex process involving multiple social actors, legal bodies, and institutional commitments. Since the enactment of the 1988 Federal Constitution, followed by the Law of Guidelines and Bases of National Education (LDBEN No. 9,394/1996), the understanding that education is a right of all and a duty of the State has been consolidated. This perspective was reinforced by international documents, such as the Salamanca Statement (UNESCO, 1994), which supported the paradigm of inclusion as a policy of social justice.

However, as revealed by a critical study on the trajectory of inclusive policies in the country, this legal construction does not by itself guarantee the effectiveness of school practices, because there is a considerable gap between the normative framework and everyday educational reality (Cunha; Andrade; Albuquerque, 2023).

Public inclusion policies have faced structural challenges in their implementation. One of the main obstacles is related to the precarious infrastructure of schools, especially in municipal and state public systems, which lack adequate resources, specialized educational service rooms (AEE), assistive technologies, and physical accessibility. Although the National Education Plan (PNE) establishes specific goals for the universalization of inclusive education, the lack of continuous funding and political commitment has compromised its execution (Araújo, 2023). Thus, even though rights are formally guaranteed, many students continue to remain on the margins of the teaching-learning process due to the absence of basic access conditions.

Another critical point identified by Araújo (2023) is the disarticulation between public policies and pedagogical practices. Although the legislation is relatively robust, many schools are unable to implement inclusive actions systematically. This occurs, to a large extent, because of the scarcity of continuing education specifically focused on inclusion, which limits teachers' ability to adapt their methods and planning to the singularities of students. The absence of adequate technical-pedagogical support and teacher overload aggravate this scenario, contributing to the perpetuation of traditional and exclusionary practices.

Teacher education strategies therefore emerge as a decisive factor for the realization of inclusion. According to Greguol, Gobbi, and Carraro (2013), education for diversity should integrate theory and practice, addressing cultural, emotional, and pedagogical aspects of difference. It is not merely a matter of training teachers technically, but of promoting a shift in conception regarding the school's role in guaranteeing human rights and valuing plurality. This education must be permanent, contextualized, and

interdisciplinary, enabling educators to develop critical autonomy and sensitivity to build inclusive didactic proposals.

In this sense, active methodologies and flexible curricula are essential for operationalizing inclusion in practice. The use of interdisciplinary projects, conversation circles, group work, and problem-based learning fosters the active participation of all students, creating an environment of interaction that values different forms of expression and knowledge construction. As Araujo and Reis (2011) emphasize, these approaches contribute not only to learning, but also to students' civic education, as they promote respect, listening, and the recognition of differences as a constitutive part of the school space.

The adaptation of didactic materials is another fundamental front in inclusion policies. The personalization of resources—such as the provision of books in braille, audiobooks, tactile materials, or interactive software—broadens access to knowledge and respects different learning styles. According to Senna (2004), this personalization is a powerful strategy for ensuring equity, because it recognizes that access to information depends on mediation appropriate to the particularities of each subject. Moreover, it is a practice that reinforces the autonomy of students with disabilities, moving away from the welfare-oriented and paternalistic models still prevalent in many institutions.

CHALLENGES AND TRANSFORMATIVE PERSPECTIVES IN THE CONTEMPORARY SCHOOL REALITY

Based on the diagnoses of Amâncio and Rodrigues (2020) and Araújo (2023), it is clear that building an inclusive school implies overcoming the disciplinary model while at the same time strengthening the practical implementation of public policies. This process requires a renewed institutional culture capable of welcoming diversity, promoting pedagogical flexibility, and fostering collaborative practices centered on students as active subjects.

One of the greatest challenges highlighted by both authors is teacher education: according to Araújo (2023), without teachers qualified to plan and implement inclusive strategies, such as

individualized plans, diversified methodologies, and formative assessment, official policies tend to remain in the realm of rhetoric. This need for education echoes the critique by Amâncio and Rodrigues (2020), who identify institutional incapacity to listen and adapt as a cultural obstacle that only reinforces the disciplinary regime.

There is convergence between the authors in their defense of cooperative, personalized pedagogical practices centered on students' potentialities as fundamental. Araújo (2023) cites examples of schools that make progress when they are able to articulate resource rooms, multidisciplinary teams, and participatory projects; Amâncio and Rodrigues (2020), in turn, stress that such practices only thrive in school environments where centralized authority is questioned and co-responsibility and active listening are promoted.

The challenge of assessment is also emphasized: it is urgent to replace traditional evaluative logic with methods that recognize different ways of learning and allow students to demonstrate their knowledge in varied forms. This movement toward inclusive assessment aligns with what Araújo (2023) calls "assessment sensitive to diversity," while Amâncio and Rodrigues (2020) emphasize that disciplinary rigidity prevents the adoption of flexible assessment systems.

Institutional resistance, manifested in cultural barriers, political disengagement, and lack of collective commitment, represents a significant obstacle. According to both authors, profound cultural changes require time, committed leadership, and the democratic involvement of all school actors, with reflective practices that question the disciplinary status quo.

However, there are concrete transformative perspectives: continuing education that articulates theory and practice, collaborative networks among schools, participatory monitoring, and the construction of an institutional culture that values difference not merely as tolerance, but as a central pedagogical value. These elements converge toward redesigning the school as a space of belonging.

In summary, the dialogue between Amâncio and Rodrigues (2020) and Araújo (2023) provides a robust picture of the main challenges—both structural and cultural—and of the possibilities for promoting

transformative inclusive practices that articulate a culture of difference with the political, pedagogical, and institutional commitment of the contemporary school.

FINAL CONSIDERATIONS

Inclusive education, in the contemporary scenario, presents itself as an ethical, pedagogical, and social imperative that profoundly challenges the traditional structures of the school. The analysis developed throughout this work demonstrated that the realization of inclusive practices cannot be conceived in a superficial or merely normative manner, but requires structural, cultural, and methodological transformations that reach all levels of the school environment. Overcoming the logic of homogenization, breaking with exclusionary practices, and reconstructing the pedagogical foundations that organize everyday school life are indispensable steps for the school to truly become a space of welcoming, belonging, and the promotion of equity.

It was possible to perceive that, although there are public policies that guarantee the right to inclusion, their application encounters several obstacles, such as the absence of adequate education for teaching professionals, the precariousness of resources, and the maintenance of an institutional culture resistant to difference. This makes evident that inclusion cannot be reduced to a series of technical adaptations or isolated actions, but must be incorporated as a structuring principle of educational practice. The school needs to be open to dialogue, active listening, and the creation of collective strategies that value each subject in his or her singularity.

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**ACTIVE METHODOLOGIES AND PEDAGOGICAL PRACTICE IN PRIMARY EDUCATION:
AN INNOVATIVE PERSPECTIVE**

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Abstract

This article discusses the implementation of active learning methodologies within the context of Primary Education. The study analyzes how student-centered strategies can foster autonomy and engagement in the teaching-learning process. It is noteworthy that this work is an intellectual creation of the authors and

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is therefore a fictitious production developed for academic reflection purposes. The results suggest that the integration of these practices significantly contributes to the development of critical and collaborative skills in students.

Keywords: Active Methodologies, Primary Education, Autonomy, Pedagogical Practice.

INTRODUCTION

This paper aims to present an intercultural activity to be developed at the Raimundo Nonato de Oliveira Gomes Municipal School, aimed at students in the 4th and 5th grades of Primary Education, aged between 9 and 11 years, coming from different social, religious, cultural, and ethnic backgrounds, in order to implement and promote encounters and relationships among them, seeking to address cultural diversity.

In recent years, Brazil has received numerous Venezuelan immigrants and refugees due to the humanitarian crisis in the neighboring country. Many of these families seek to rebuild their lives and secure a better future for their children, who end up enrolling in Brazilian schools. However, the adaptation of these students to the school environment is not always easy, as it involves cultural and linguistic challenges and, in some cases, experiences of discrimination and xenophobia.

Venezuelan culture presents similarities with Brazilian culture, and the Portuguese language shares Latin roots with Spanish. Nevertheless, there are marked differences that may impact the integration of refugee students. Customs, food, traditions, and even teaching styles in Venezuela differ in certain aspects from Brazilian reality.

Unfortunately, many Venezuelan students face prejudice and discrimination in the school environment. Pejorative comments, jokes about their accent or nationality, and even rejection by classmates are experiences reported by some children and adolescents. Xenophobia may manifest subtly, such as through exclusion from group activities, or more explicitly, through verbal and physical aggression.

Given these challenges, the role of the school is fundamental in ensuring that these students are well received and feel part of the school community. Teachers and administrators must remain attentive to possible cases of discrimination, promoting actions that encourage empathy and respect for diversity.

The presence of Venezuelan students in Brazilian schools represents an opportunity for enriching cultural exchange for everyone. However, a collective effort is necessary to combat discrimination and ensure that these students have the same opportunities for learning and socialization. Education must be a space of inclusion, where all children, regardless of their origin, can build a future with dignity and respect.

The school, as the foundation of society, plays a fundamental role in the formation of citizens and, above all, as a promoter of knowledge and a disseminator of interculturality and education, so that situations such as the one described below are not normalized: “We note that xenophobia has emerged as the result of a set of specific assumptions manifested by some Brazilians, who come to blame Venezuelans for the increase in violence, criminality, etc. We also perceive that xenophobia materializes in dimensions ranging from symbolic violence (such as insults) to more extreme actions, that is, physical violence against immigrants (attacks and homicides).” (Mina & Lima, 2018, p. 327).

DESCRIPTION OF THE PROBLEM

At the Raimundo Nonato de Oliveira Gomes Municipal School, in a 5th-grade class, the homeroom teacher observed attitudes of bullying and xenophobia by a group of three girls against a Venezuelan immigrant student. The teacher spoke individually with the students and also addressed the issue with the class; nevertheless, the insults and xenophobic behavior persisted. The group of students insulted the Venezuelan girl and told her to return to her country. They also isolated the refugee student from the other classmates.

As the behavior continued, it became necessary to refer the students to the School’s Pedagogical Coordination. The students were assisted by the pedagogue and the school administrator, who provided

guidance regarding the situation of Venezuelan refugees. It was observed that the students lacked knowledge about the political, economic, and historical situation of the neighboring country. The students' guardians were also summoned to the school to be informed of the situation.

DESIGN OF THE INTERVENTION: CRITERIA FOR THE DEVELOPMENT OF INTERCULTURALITY

After identifying cases of xenophobia directed at Venezuelan students, the teaching staff, together with the pedagogical coordination, developed a comprehensive pedagogical intervention proposal. The main objective is to create a welcoming school environment free from discrimination, both for students and for institutional staff.

THE PROPOSAL FOCUSES ON THREE MAIN AXES

Continuing education: Seminars and workshops will be held to address topics such as immigration, cultural diversity, human rights, and anti-xenophobia legislation. The aim is to provide educators with the necessary tools to understand and address issues related to xenophobia.

Improvement of pedagogical practice: Teachers will be encouraged to develop teaching strategies that value cultural diversity and combat discrimination. This includes the creation of inclusive teaching materials and the promotion of activities that stimulate intercultural dialogue.

Strengthening teaching performance: The goal is to train teachers to intervene effectively in situations of xenophobia, promoting dialogue and the peaceful resolution of conflicts. In addition, a support network will be created so that educators can share experiences and seek guidance.

The proposal aims to promote a cultural shift within the school, encouraging respect for diversity and the construction of a more inclusive and welcoming school environment for all.

Universal Declaration of Human Rights: This fundamental document establishes the basic rights of all human beings, including the right to equality and non-discrimination.

Law No. 12.288/2010 (Statute of Racial Equality): This law establishes measures to promote racial equality and combat discrimination.

Case studies: Analyze real situations of xenophobia in the school environment and discuss intervention strategies.

Study groups: Promote the reading and discussion of academic texts and current official documents, newspapers, and media content related to the topic.

Development of Pedagogical Strategies: Elaboration of interdisciplinary projects: Integrate the theme of immigration and Venezuelan culture into different areas of knowledge.

Creation of teaching materials: Develop pedagogical resources that value cultural diversity and combat stereotypes.

Implementation of extracurricular activities: Promote cultural events, exhibitions, and discussion circles that bring Brazilian and Venezuelan students closer together.

ONE OF THE METHODOLOGICAL APPROACHES

Creation of an intervention protocol: Define procedures for dealing with situations of xenophobia in the school environment.

Formation of a support network: Establish channels of communication and collaboration among teachers, the pedagogical team, and the Venezuelan community.

Individualized follow-up: Offer support to teachers who deal with cases of xenophobia in their classrooms.

RESOURCES

Partnerships with universities and research centers: Obtain technical and scientific support for the design and implementation of actions.

Audiovisual resources and teaching materials: Provide tools for the development of pedagogical activities.

Online platforms: Create virtual spaces for information sharing and the exchange of experiences, including welcoming spaces such as WhatsApp groups and communication links among families.

GENERAL EVALUATION

Continuous monitoring: Track the implementation of actions and evaluate the results obtained.

Opinion surveys: Collect data on teachers' perceptions regarding the effectiveness of the intervention, as well as suggestions for improvement.

Indicator analysis: Evaluate the reduction of xenophobia cases in the school environment.

THE PRINCIPLE OF DIVERSIFICATION

“The school, as a space where different cultures meet, must promote the construction of plural identities and respect for diversity.” (Moreira & Candau, 2017).

CONSIDERATIONS

The intervention must be continuous and integrated into the school's political-pedagogical project. It is essential that the Venezuelan community be involved in the construction and execution of actions. Teacher training must be critical and reflective, encouraging analysis of one's own pedagogical practices. “Intercultural education, rather than merely tolerating differences, seeks to promote dialogue and interaction among cultures, building bridges and dismantling walls.” (Fleuri, 2019).

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THE IMPORTANCE OF AFRO-BRAZILIAN CULTURE IN EDUCATION

 <https://doi.org/10.63330/aurumpub.046-006>Jessé Fernandes da Silva¹**Abstract**

The present study addresses the importance of Afro-Brazilian culture in education, highlighting its relevance in the formation of national identity and in the development of inclusive pedagogical practices. It is a theoretical study based on a literature review and analysis of educational legislation, especially Law 10.639/03, which makes the teaching of Afro-Brazilian history and culture mandatory in schools. The objective of this work is to analyze how the inclusion of this theme in the school environment contributes to the appreciation of cultural diversity, the strengthening of students' identity, and the promotion of an anti-racist education. The methodology adopted consisted of the analysis of academic productions, official documents, and pedagogical experiences reported in the literature. The results indicate that the inclusion of Afro-Brazilian culture in the school curriculum promotes the development of students' self-esteem, broadens critical awareness, and fosters more respectful relationships in the school environment. It is concluded that the appreciation of this culture in education not only fulfills a legal requirement, but also constitutes a fundamental instrument for building a fairer, more equitable society that is conscious of its historical and cultural diversity.

Keywords: Afro-Brazilian culture, Education, Identity, Cultural diversity, Inclusion.

INTRODUCTION

Afro-Brazilian culture constitutes one of the fundamental pillars in the formation of Brazilian society, being present in the country's cultural, religious, artistic, and social manifestations. However,

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historically, its recognition within the educational context has been neglected, reflecting inequalities and processes of exclusion that still persist.

The inclusion of Afro-Brazilian themes in the school environment gained greater prominence with the enactment of Law 10.639/03, which establishes the compulsory teaching of Afro-Brazilian history and culture in basic education. This legislation represents an important milestone in the recognition of African contributions to the formation of Brazil.

In this context, the present article aims to analyze the importance of Afro-Brazilian culture in education, highlighting its role in the construction of students' identities, in the appreciation of diversity, and in the promotion of a more inclusive and critical education.

LITERATURE REVIEW

Afro-Brazilian culture is the result of historical processes marked by resistance, struggle, and the preservation of knowledge brought by enslaved African peoples. According to Silva (2010), these contributions are fundamental to understanding the social and cultural formation of Brazil.

Education, in turn, plays an essential role in the construction of identities and in the reproduction or transformation of social values. In this sense, the inclusion of Afro-Brazilian culture in the school curriculum makes it possible to recognize different historical narratives, thereby contributing to the overcoming of stereotypes and prejudices (Gomes, 2012).

According to Munanga (2005), the lack of knowledge about African and Afro-Brazilian history contributes to the maintenance of structural racism. Thus, the teaching of this theme in schools is a fundamental strategy for promoting racial equality.

Furthermore, the appreciation of cultural diversity within the school environment fosters the development of students' self-esteem, especially among those who belong to historically marginalized groups. For Lorenzoni (2018), education should be a space for recognizing differences and for constructing pedagogical practices that respect cultural plurality.

METHODOLOGY

The present study is characterized as qualitative theoretical research based on a literature review. Books, scientific articles, official documents, and legislation related to the theme of Afro-Brazilian culture in education were analyzed.

The research also considered reports of pedagogical experiences described in the literature, seeking to understand how the inclusion of Afro-Brazilian culture takes place in school practice and what its impacts are on the teaching-learning process.

RESULTS AND DISCUSSION

The analysis of the data shows that the inclusion of Afro-Brazilian culture in the school environment contributes significantly to the holistic development of students. Among the main results observed, the strengthening of students' identity and self-esteem stands out, especially among those of African descent.

Pedagogical experiences involving cultural practices such as music, dance, capoeira, and Afro-Brazilian literature demonstrate greater student engagement and promote more meaningful learning. In addition, these practices foster the development of socio-emotional competencies such as empathy, respect, and the appreciation of differences.

Another relevant aspect is the role of the teacher as the mediator of this process. The continuing education of educators is fundamental so that they may develop pedagogical practices that integrate Afro-Brazilian culture in a critical and contextualized manner.

However, challenges still remain in the effective implementation of Law 10.639/03, such as the lack of specific teacher training and the absence of appropriate teaching materials. These factors contribute to the persistence of superficial or isolated practices that do not promote significant changes in the school curriculum.

CONCLUSION

Valuing Afro-Brazilian culture in education is essential to the construction of a fairer, more inclusive society that is aware of its diversity. More than fulfilling a legal requirement, the inclusion of this theme in the school curriculum represents an ethical commitment to equity and social justice.

The results of this study demonstrate that pedagogical practices that value Afro-Brazilian culture contribute to strengthening students' identities, promote respect for differences, and foster the development of critical awareness.


Therefore, it is essential that educational institutions invest in teacher training, in the production of teaching materials, and in the implementation of pedagogical projects that integrate this theme in a continuous and meaningful way.

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GAMIFICATION AS AN INTERDISCIPLINARY PEDAGOGICAL DEVICE IN NATURAL SCIENCES EDUCATION: ANALYSIS OF ITS IMPACTS ON MEANINGFUL LEARNING IN LIGHT OF AUSUBEL'S THEORY

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Abstract

Gamification has emerged as an active methodology capable of enhancing the teaching-learning process, particularly in Natural Sciences education. This study aimed to analyze the impacts of gamification as an interdisciplinary pedagogical device in promoting meaningful learning, based on David Ausubel's theory. It is a qualitative literature review conducted in the ERIC, SciELO, Latindex databases, and institutional repositories, considering publications from 2022 to 2026. The results indicated that gamification promotes student engagement, motivation, and active participation, in addition to fostering cognitive skills such as critical thinking and problem-solving. Furthermore, the use of game elements, such as challenges, rewards, and narratives, facilitates the anchoring of new knowledge to prior knowledge, enabling meaningful learning. The interdisciplinary approach proved essential for integrating Natural Sciences content, contributing to a more contextualized understanding of scientific phenomena. However, challenges were identified, including the need for adequate teacher training, pedagogical planning, and access to technological resources. It is concluded that gamification, when applied intentionally and grounded in theory, represents a promising strategy for innovation in science education, contributing to the development of more meaningful and lasting learning.

Keywords: Active methodologies, Gamification, Interdisciplinary teaching, Meaningful learning, Natural sciences.

INTRODUCTION

Contemporary education has been marked by significant transformations that demand the adoption of innovative methodologies capable of promoting greater engagement and effectiveness in the teaching-learning process. In this context, gamification emerges as a relevant pedagogical device, characterized by the application of elements typical of games in educational environments, with the aim of stimulating students' active participation and fostering the construction of knowledge (Curvo; Mello; Leão, 2023). In Natural Sciences education, this approach assumes a strategic role by enabling the integration of content

from different areas, promoting more dynamic, contextualized, and interdisciplinary learning (Queiroga; Pacheco, 2024).

The use of gamification in the school environment has demonstrated potential to overcome traditional pedagogical practices centered on the transmission of content and on mechanical memorization. By incorporating elements such as challenges, rewards, immediate feedback, and engaging narratives, this methodology contributes to increasing students' motivation and engagement, in addition to fostering the development of cognitive, social, and emotional skills (Neto; Penteado; Carvalho, 2023; Feliciano et al., 2023). Studies show that its application in subjects such as Biology, Chemistry, and Physics has led to improvements in academic performance and greater interest in scientific content (Silva; Zanelato, 2024; Pereira; Leite, 2025; Teixeira; Valle, 2025).

Furthermore, international research indicates that gamification can promote the development of critical thinking, autonomy, and self-regulation of learning, especially when associated with digital technologies and interactive environments (Alahmari et al., 2023; Zourmpakis; Kalogiannakis; Papadakis, 2023; Ateş; Polat, 2025). In this sense, the integration of resources such as augmented reality and gamified digital platforms expands teaching possibilities, making learning more meaningful and aligned with the demands of contemporary society (Ahmed et al., 2025; Zarror; Sumaryati; Sukmawati, 2025).

However, despite the advances evidenced in the literature, there are still gaps regarding the understanding of the impacts of gamification on the promotion of meaningful learning, especially when analyzed from an interdisciplinary perspective in Natural Sciences education. Thus, the following research problem is defined: how does gamification, as an interdisciplinary pedagogical device, contribute to the promotion of meaningful learning in Natural Sciences education in light of Ausubel's theory?

Given this problem, the general objective of this study is to analyze the impacts of gamification on the promotion of meaningful learning in Natural Sciences education, grounded in the theoretical assumptions of David Ausubel. The specific objectives are: (i) to discuss the foundations of gamification

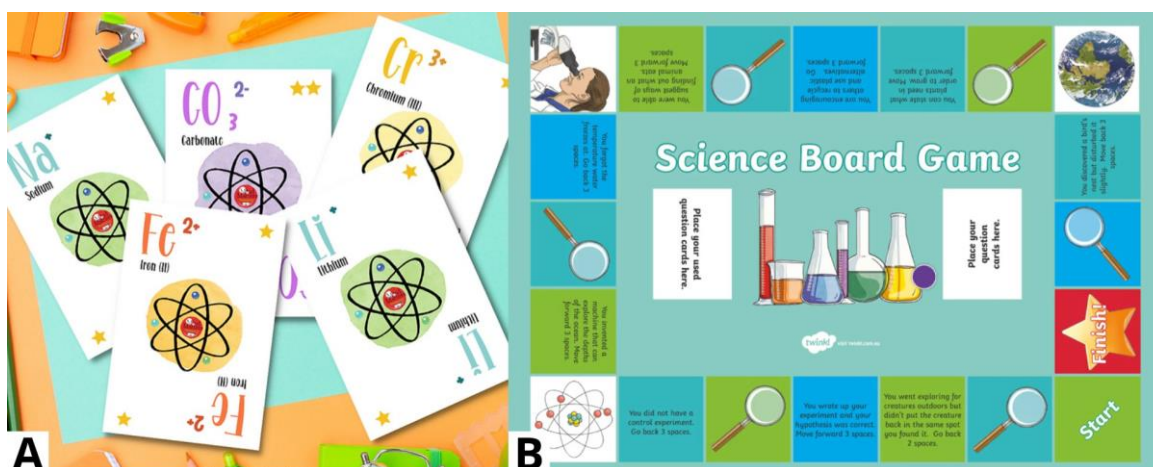
as an active methodology in science education; (ii) to understand the principles of the theory of meaningful learning; (iii) to analyze empirical evidence on the use of gamification in different areas of the Natural Sciences; and (iv) to identify the contributions and limitations of this approach in the teaching-learning process.

The justification for this study is based on the need to investigate pedagogical practices that promote more meaningful learning, considering the challenges faced in the educational context, such as student demotivation and the fragmentation of knowledge. The theory of meaningful learning proposed by Ausubel emphasizes that learning occurs more effectively when new information is related to relevant prior knowledge, allowing structured and lasting assimilation (Farias, 2022; Costa Júnior et al., 2023). In this sense, gamification can act as a mediating strategy that facilitates this connection, making content more accessible and contextualized (Siqueira et al., 2026).

In the following paragraph, Figure 1 is presented, illustrating examples of gamification strategies applied to Natural Sciences education, highlighting elements such as scoring systems, levels, challenges, missions, scientific narratives, and the use of interactive digital technologies, which contribute to making the learning process more engaging and meaningful.

Figure 1

Examples of gamification strategies in Natural Sciences education



Source: A) Play Card Games to teach Ionic Bonding and Chemical Formulae (2024); B) Science Board Game (2024)

With regard to the theoretical framework, meaningful learning, according to Ausubel, is based on the interaction between new knowledge and pre-existing cognitive structures, called subsumers, allowing learning to occur in a non-arbitrary and non-literal manner (Sexton, 2025). This perspective stands in contrast to mechanical learning, characterized by memorization without understanding, which is still predominant in many educational contexts (Rocha et al., 2026). Studies indicate that active methodologies, such as the use of concept maps and interactive strategies, favor this type of learning by promoting the organization and integration of knowledge (Mossi; Vinholi Junior, 2022; Gaudêncio et al., 2023).

At the same time, gamification has been widely discussed as an active methodology capable of enhancing meaningful learning. Research demonstrates that the use of playful elements in science education contributes to the active construction of knowledge, stimulating curiosity, inquiry, and problem-solving (Camatta, 2025; Santos et al., 2025). Moreover, the interdisciplinary approach, by integrating different areas of knowledge, makes possible a broader understanding of scientific phenomena, favoring the contextualization of content and meaningful learning (Arcanjo Filho; Martins, 2025).

In this context, the articulation between gamification, interdisciplinarity, and meaningful learning represents a promising field for pedagogical innovation in Natural Sciences education. Recent studies highlight that gamification, when applied in a planned manner and aligned with clear educational objectives, can contribute significantly to the development of students' cognitive and socioemotional competencies (Papadakis; Zourmpakis; Kalogiannakis, 2022; Santos Rey; Linhares; Borba-Pinheiro, 2025). Thus, it becomes essential to deepen investigations into this theme in order to support teaching practices that are more effective, inclusive, and contextualized.

Thus, this research is situated within the field of discussions on pedagogical innovation, seeking to understand how gamification, articulated with Ausubel's theory of meaningful learning, can contribute to the construction of a more integrated, dynamic, and meaningful Natural Sciences education.

METHODOLOGY

This research is characterized as a literature review with a qualitative approach, descriptive and exploratory in nature, aimed at analyzing the contributions of gamification as an interdisciplinary pedagogical device in Natural Sciences education, with a focus on promoting meaningful learning in light of Ausubel's theory. The choice of this methodological design is justified by the possibility of gathering, analyzing, and synthesizing recent scientific productions, allowing an in-depth understanding of the state of the art regarding the theme under investigation.

The study was guided by the following research question: how does gamification, as an interdisciplinary pedagogical device, contribute to the promotion of meaningful learning in Natural Sciences education in light of Ausubel's theory? This question guided all stages of the research, from the definition of search strategies to the analysis of the selected studies.

For data collection, a systematized search was carried out in databases recognized in the educational and scientific field, namely: Education Resources Information Center (ERIC), Scientific Electronic Library Online (SciELO), Latindex, and institutional repositories of national and international universities. These sources were selected due to their academic relevance and broad coverage in indexing studies focused on education, science teaching, and active methodologies.

The time frame adopted comprised publications between the years 2022 and 2026, with the aim of including recent and up-to-date productions on the topic. The search strategy used descriptors in Portuguese and English, combined through Boolean operators (AND and OR), such as: “gamificação,” “ensino de ciências,” “aprendizagem significativa,” “David Ausubel,” “metodologias ativas,” “gamification,” “science education,” and “meaningful learning.” These terms were selected based on their relevance to the theme and their frequency of use in scientific studies in the field.

As inclusion criteria, the following were considered: (i) full scientific articles available in their entirety; (ii) studies published between 2022 and 2026; (iii) publications in Portuguese, English, and Spanish; (iv) research addressing gamification in the context of Natural Sciences education or related

areas (Biology, Physics, and Chemistry); and (v) studies presenting a relationship with meaningful learning or with Ausubel's theory. On the other hand, the exclusion criteria involved: (i) duplicate works; (ii) studies not directly related to the proposed theme; (iii) abstracts, reviews, editorials, and opinion articles; and (iv) publications with restricted access or unavailable in full.

The study selection process took place in stages. Initially, the titles and abstracts were read in order to identify relevance to the theme. Next, the previously selected articles were read in full, allowing a more careful analysis of their relevance and contribution to the study.

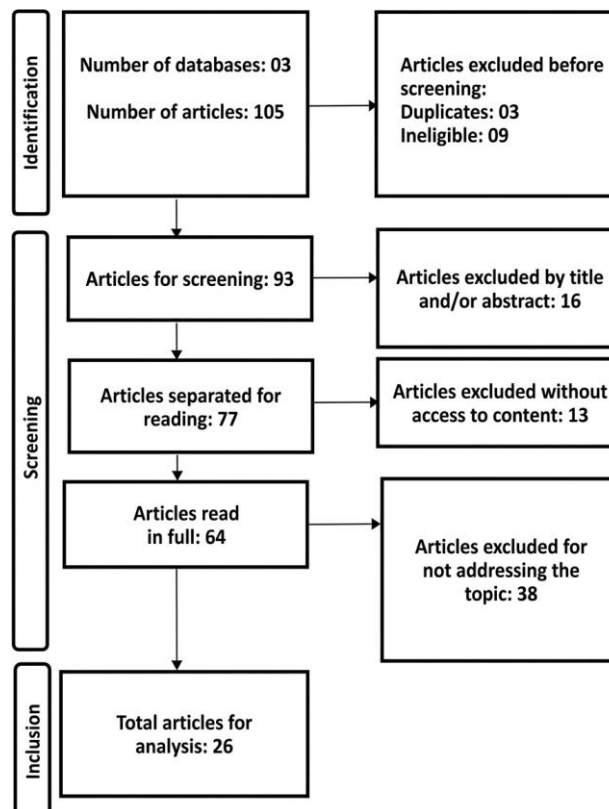
Finally, the works that met all established criteria were included in the review and subjected to qualitative analysis.

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In the following paragraph, Figure 2 is presented, illustrating the flowchart of the study selection process, highlighting the stages of identification, screening, eligibility, and inclusion of the articles analyzed in this review.

Figure 2

Flowchart of the study selection process



Source: Authors (2026)

Data analysis was carried out using the content analysis technique, allowing the categorization and interpretation of the findings in a systematic and critical manner. The information extracted from the selected studies was organized into thematic categories, considering aspects such as the contributions of gamification to science education, impacts on meaningful learning, pedagogical strategies used, and limitations identified in the literature.

Thus, the methodology adopted enabled a comprehensive and well-founded analysis of the theme, contributing to the understanding of the impacts of gamification on meaningful learning and offering support for the development of innovative pedagogical practices in Natural Sciences education.

RESULTS AND DISCUSSION

The results of this review show that gamification, when applied to Natural Sciences education, presents significant positive impacts on the teaching-learning process, especially with regard to student engagement, motivation, and the construction of more lasting knowledge. In general, the studies analyzed converge in indicating that the incorporation of playful and interactive elements into the educational context contributes to overcoming traditional practices centered on memorization, favoring more active and participatory approaches (Neto; Penteado; Carvalho, 2023; Curvo; Mello; Leão, 2023).

It is observed that, in Natural Sciences education, gamification has been widely used in subjects such as Biology, Chemistry, and Physics, promoting greater student interest in scientific content. In studies focused on Biology teaching, for example, increased classroom participation and improved understanding of complex concepts stand out, especially when educational games and gamified digital platforms are used (Feliciano et al., 2023; Teixeira; Valle, 2025). In Physics teaching, gamification has contributed to making abstract content more accessible, favoring the contextualization and practical application of knowledge (Silva; Zanelato, 2024; Siqueira et al., 2026). Similarly, in Chemistry teaching, gamified strategies help in understanding theoretical content and stimulate investigative thinking (Pereira; Leite, 2025; Santos et al., 2025).

Another relevant aspect identified in the studies concerns the impact of gamification on the development of cognitive and socioemotional skills. Research indicates that the use of game mechanics, such as progressive challenges, rewards, and immediate feedback, favors the development of critical thinking, autonomy, and self-regulation of learning (Alahmari et al., 2023; Ahmed et al., 2025). In addition, the social interaction promoted by gamified activities contributes to strengthening collaborative skills, which are essential in the contemporary educational context (Santos Rey; Linhares; Borba-Pinheiro, 2025).

In the following paragraph, Table 1 is presented, which synthesizes the main contributions of gamification in Natural Sciences education, as evidenced in the analyzed studies.

Table 1

Main contributions of gamification in Natural Sciences education

Category	Identified contributions	References
Engagement and motivation	Enhances students' active involvement through interactive stimuli, promoting greater interest, continuous participation, and persistence in learning activities	Feliciano <i>et al.</i> , 2023; Teixeira; Valle, 2025
Meaningful learning	Favors the anchoring of new knowledge to pre-existing cognitive structures, promoting non-arbitrary assimilation and the construction of lasting meanings	Siqueira <i>et al.</i> , 2026; Farias, 2022
Cognitive development	Stimulates higher-order cognitive processes, such as critical thinking, problem-solving, decision-making, and intellectual autonomy in the learning process	Ahmed <i>et al.</i> , 2025; Alahmari <i>et al.</i> , 2023
Interdisciplinarity	Enables integrated articulation among different areas of the Natural Sciences, favoring a contextualized and systemic understanding of scientific phenomena	Camatta, 2025; Queiroga; Pacheco, 2024
Social interaction	Promotes collaborative dynamics that strengthen socioemotional skills, such as communication, cooperation, empathy, and teamwork	Santos Rey; Linhares; Borba-Pinheiro, 2025
Understanding of content	Facilitates the appropriation of abstract and complex concepts through playful representations, simulations, and contextualized problem situations	Silva; Zanelato, 2024; Pereira; Leite, 2025

Source: Authors (2026)

Data analysis also reveals that gamification has strong potential to promote meaningful learning, especially when articulated with the principles of Ausubel's theory. According to this perspective, learning occurs more effectively when new information is related to students' prior knowledge, allowing structured and non-arbitrary assimilation (Farias, 2022; Costa Júnior et al., 2023). In this sense, gamification acts as a pedagogical mediator that facilitates this connection by making content more attractive and contextualized (Siqueira et al., 2026).

Studies highlight that the use of narratives, missions, and contextualized challenges contributes to the activation of students' prior knowledge, favoring the anchoring of new content in existing cognitive structures (Arcanjo Filho; Martins, 2025). In addition, strategies such as the use of concept maps associated with gamified activities enhance the organization of knowledge, promoting more meaningful learning (Mossi; Vinholi Junior, 2022). Thus, gamification not only increases engagement but also contributes to the quality of learning.

Another important result concerns the interdisciplinarity promoted by gamification. The studies analyzed indicate that this approach allows the integration of different areas of knowledge, favoring a broader and more contextualized understanding of scientific phenomena (Camatta, 2025). The articulation among Biology, Chemistry, and Physics content in gamified activities contributes to the construction of more integrated knowledge, breaking with the traditional fragmentation of teaching (Queiroga; Pacheco, 2024).

In the following paragraph, Table 2 is presented, highlighting the main limitations and challenges associated with the implementation of gamification in Natural Sciences education.

Table 2

Limitations and challenges of gamification in Natural Sciences education

Category	Identified limitations and challenges	References
Pedagogical planning	Requires structured instructional planning and alignment between gamification elements and educational objectives, at the risk of pedagogical mischaracterization	Alahmari <i>et al.</i> , 2023
Teacher training	Reveals gaps in teachers' initial and continuing education for the critical and intentional use of active methodologies mediated by technologies	Neto; Penteadó; Carvalho, 2023
Technological infrastructure	Depends on the availability and quality of technological resources, whose absence may compromise the effectiveness of gamified strategies	Ateş; Polat, 2025
Superficiality of learning	May induce excessive valorization of playful aspects to the detriment of conceptual depth, resulting in fragmented or weakly consolidated learning	Zourmpakis; Kalogiannakis; Papadakis, 2023
Teacher resistance	Faces barriers related to resistance to pedagogical innovation, often associated with methodological insecurity or with traditional educational culture	Neto; Penteadó; Carvalho, 2023
Inequality of access	Reflects disparities in students' access to digital technologies, which may widen educational inequalities and limit equity in the learning process	Alahmari <i>et al.</i> , 2023

Source: Authors (2026)

Despite the identified benefits, the literature also points to relevant limitations in the application of gamification. Among the main challenges, the need for adequate pedagogical planning, teacher training for the use of active methodologies, and the availability of technological resources stand out (Zourmpakis; Kalogiannakis; Papadakis, 2023; Ateş; Polat, 2025). In addition, some studies indicate that the inappropriate use of gamification may result in superficiality of learning, especially when there is an excessive focus on playful elements to the detriment of pedagogical objectives (Alahmari *et al.*, 2023).

Another observed aspect concerns the resistance of some teachers to adopting innovative methodologies, which may limit the effectiveness of gamification in the school context. Furthermore, the heterogeneity of classes and differences in access to digital technologies also constitute challenges to the implementation of this approach (Neto; Penteadó; Carvalho, 2023).

Finally, the results indicate that gamification, when intentionally planned and aligned with the principles of meaningful learning, has great potential to transform Natural Sciences education. The integration of playful elements, interdisciplinarity, and a consistent theoretical foundation favors the construction of a more dynamic, meaningful, and student-centered educational process. However, its effectiveness depends on factors such as teacher training, pedagogical planning, and adaptation to the educational context, highlighting the need for further research in this area.

The discussion of the findings of this research shows that gamification, as an interdisciplinary pedagogical device, has significant potential to transform Natural Sciences education, especially when articulated with the assumptions of David Ausubel's meaningful learning theory. In this sense, the results will be discussed based on two central axes: (i) contributions of gamification to the promotion of meaningful learning in Natural Sciences education and (ii) challenges and limitations in the implementation of gamification in the educational context.

CONTRIBUTIONS OF GAMIFICATION TO THE PROMOTION OF MEANINGFUL LEARNING IN NATURAL SCIENCES EDUCATION

The analysis of the selected studies makes it possible to state that gamification is configured as an effective pedagogical strategy in promoting meaningful learning, above all because it favors the interaction between new content and students' prior knowledge. In this context, Farias (2022) highlights that meaningful learning occurs when there is a substantial relationship between new knowledge and already existing cognitive structures, enabling non-arbitrary and lasting assimilation. By incorporating

playful and interactive elements, gamification contributes to activating this prior knowledge, creating favorable conditions for the construction of meanings.

Corroborating this perspective, Costa Júnior et al. (2023) emphasize that meaningful learning depends on pedagogical strategies that promote the organization and integration of knowledge, which can be enhanced by active methodologies such as gamification. In this sense, by using challenges, narratives, and progression systems, this approach stimulates students to establish connections between concepts, favoring the construction of more structured knowledge.

In the specific field of Natural Sciences education, Queiroga and Pacheco (2024) demonstrate that gamification contributes to making content more accessible and contextualized, especially in the final years of elementary education. According to the authors, the use of educational games and digital platforms allows scientific concepts to be explored in a more dynamic way, facilitating the understanding of abstract content. Similarly, Silva and Zanelato (2024) highlight that, in Physics teaching, gamification makes possible the visualization of complex phenomena, promoting greater understanding and practical application of knowledge.

In addition, Feliciano et al. (2023) emphasize that gamification favors student engagement, an aspect fundamental to meaningful learning. According to the authors, the increase in intrinsic motivation contributes to greater dedication to the proposed activities, which enhances the assimilation of content. This idea is reinforced by Ahmed et al. (2025), who point out that gamification also stimulates the development of critical thinking by proposing challenges that require analysis, decision-making, and problem-solving.

Another relevant aspect concerns the interdisciplinarity promoted by gamification. Camatta (2025) argues that the integration of different areas of knowledge is essential for the understanding of scientific phenomena, with gamification being an effective tool for promoting this articulation. In this sense, gamified activities allow Biology, Chemistry, and Physics content to be addressed in an integrated manner, favoring a broader and more contextualized view of science.

Siqueira et al. (2026) reinforce this perspective by highlighting that gamification, when applied in an interdisciplinary way, enhances meaningful learning by promoting connections among different areas of knowledge. According to the authors, this approach contributes to the construction of more integrated knowledge that is more applicable to students' reality.

Furthermore, Mossi and Vinholi Junior (2022) emphasize that strategies such as concept maps, when associated with gamification, enhance the organization of knowledge, favoring meaningful learning. This integration among different active methodologies expands pedagogical possibilities, making the teaching process more dynamic and effective.

Finally, Rocha et al. (2026) emphasize that overcoming mechanical learning is one of the main challenges of science education, with gamification being a promising strategy for promoting this transformation. By stimulating students' active participation and the construction of meanings, this approach contributes to the formation of critical and autonomous subjects, aligning with the principles of Ausubel's theory.

CHALLENGES AND LIMITATIONS IN THE IMPLEMENTATION OF GAMIFICATION IN THE EDUCATIONAL CONTEXT

Despite the evidenced contributions, the implementation of gamification in Natural Sciences education faces significant challenges that need to be considered in order to ensure its effectiveness. One of the main aspects concerns the need for adequate pedagogical planning. In this sense, Alahmari et al. (2023) warn that gamification should not be used superficially or decontextualized; alignment between game elements and educational objectives is fundamental.

Neto, Penteado, and Carvalho (2023) reinforce this concern by highlighting that the absence of planning may compromise the quality of the teaching-learning process, resulting in activities that prioritize the playful aspect to the detriment of content. According to the authors, it is necessary for the

teacher to act as a mediator of the process, ensuring that gamification is used intentionally and pedagogically.

Another relevant challenge concerns teacher training. According to Curvo, Mello, and Leão (2023), many teachers still do not feel prepared to use active methodologies, especially those involving digital technologies. This gap in training may limit the adoption of gamification, making its effective implementation more difficult.

In addition, Zourmpakis, Kalogiannakis, and Papadakis (2023) highlight that the inappropriate use of gamification may result in superficiality of learning, especially when there is excessive focus on elements of reward and competition. According to the authors, it is essential that gamification be associated with pedagogical strategies that promote reflection and understanding of content.

Technological infrastructure also presents itself as a limiting factor. Ateş and Polat (2025) point out that the implementation of gamified strategies, especially those using digital technologies, depends on the availability of adequate resources, which is not always the reality in all educational contexts. This limitation may compromise equity in access to innovative methodologies.

Another important aspect concerns inequality in access to digital technologies. Alahmari et al. (2023) highlight that socioeconomic differences among students may impact access to technological resources, making the inclusive implementation of gamification more difficult. This factor reinforces the need to consider the educational context when adopting this methodology.

Additionally, Santos Rey, Linhares, and Borba-Pinheiro (2025) emphasize that resistance on the part of some teachers still constitutes an obstacle to the implementation of gamification. According to the authors, this resistance is often associated with a lack of familiarity with new methodologies and with the predominance of traditional pedagogical practices.

Finally, Pereira and Leite (2024) highlight that, although gamification has the potential to improve learning, its results depend on factors such as students' profile, the educational context, and the way the

methodology is applied. Thus, it becomes evident that gamification should not be seen as a universal solution, but rather as a strategy that needs to be adapted to the specificities of each reality.

In view of this, it is understood that, although gamification presents numerous contributions to Natural Sciences education, its effectiveness depends on a set of factors involving planning, teacher training, infrastructure, and adaptation to the educational context. Thus, overcoming these challenges is fundamental for this methodology to fulfill its transformative potential in the teaching-learning process.

CONCLUSION

This research aimed to analyze the impacts of gamification as an interdisciplinary pedagogical device in Natural Sciences education, in light of David Ausubel's theory of meaningful learning. Throughout the study, an effort was made to understand how this active methodology can contribute to the construction of more lasting and contextualized knowledge, as well as to identify its potentialities and limitations in the contemporary educational context.

In response to the guiding question, the results show that this approach significantly favors learning when used in a planned and intentional manner. Gamification makes possible the activation of prior knowledge, a central element in Ausubelian theory, promoting the anchoring of new information in already existing cognitive structures and, consequently, the construction of consistent and lasting meanings.

With regard to revisiting the objectives, it was found that the general objective was achieved by demonstrating the positive impacts of gamification on the teaching-learning process. The specific objectives were also fulfilled, since it was possible to discuss the foundations of gamification as an active methodology, understand the principles of meaningful learning, analyze empirical evidence in different areas of the Natural Sciences, and identify both the contributions and the limitations of this pedagogical approach.

Among the main results, it stands out that gamification promotes greater engagement, motivation, and active student participation, in addition to favoring the development of cognitive skills such as critical thinking, problem-solving, and autonomy. Moreover, it became evident that the integration of playful elements with theoretically grounded pedagogical strategies contributes to the understanding of complex content, especially when associated with interdisciplinarity, allowing a broader and more contextualized view of scientific phenomena.

The research also showed that gamification acts as an important mediator in the teaching-learning process by making content more accessible and meaningful for students. Its articulation with Ausubel's theory reinforces the importance of pedagogical practices that value prior knowledge and promote active learning, overcoming traditional models based on memorization. In this way, gamification is consolidated as a promising strategy for innovation in Natural Sciences education.

As a contribution, this study broadens discussions on the use of active methodologies in the educational context, offering theoretical and practical support for implementing gamification in a more conscious and well-founded manner. In addition, it highlights the relevance of interdisciplinarity as a central element in the construction of meaningful learning, contributing to the education of students who are more critical, autonomous, and prepared to face contemporary challenges.

Finally, it is suggested that future research takes a more in-depth look at the empirical analysis of gamification in diverse educational contexts, considering variables such as levels of education, different socioeconomic realities, and the use of emerging digital technologies. It is also recommended that investigations explore teacher training for the use of gamified methodologies, as well as longitudinal studies that assess the impacts of this approach on meaningful learning in the long term. In this way, it will be possible to further consolidate the potential of gamification as a transformative tool in Natural Sciences education.

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ACTIVE METHODOLOGIES IN YOUTH AND ADULT EDUCATION: AN ANALYSIS OF THEIR IMPACTS ON LEARNING, ENGAGEMENT, AND SCHOOL RETENTION

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Abstract

This study analyzed the impacts of active methodologies on learning, engagement, and school retention in Youth and Adult Education (YAE), considering the specificities of this educational modality and its

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historical challenges. It is a qualitative literature review based on scientific publications from 2022 to 2026, retrieved from SciELO, Latindex, and university repositories. The study was guided by the following research question: what are the impacts of active methodologies on learning, engagement, and school retention in YAE?. The findings revealed that active methodologies, such as problem-based learning, gamification, the use of digital technologies, and collaborative learning, significantly contribute to meaningful learning by valuing students' prior knowledge and promoting autonomy. Regarding engagement, there was an increase in students' motivation, participation, and interest, especially when interactive and contextualized strategies were applied. Concerning school retention, these methodologies were shown to reduce dropout rates by strengthening the relationship between students and the school environment, making the educational process more attractive and inclusive. However, challenges were also identified, including the need for teacher training, structural limitations, and inequalities in access to digital technologies. It is concluded that active methodologies represent a promising strategy for YAE, provided they are aligned with public policies and contextualized pedagogical practices.

Keywords: Active methodologies, Meaningful learning, School engagement, School retention, Youth and adult education.

INTRODUCTION

Youth and Adult Education (YAE) is configured as an essential educational modality for the promotion of social equity, by providing access to schooling for individuals who, for different historical, social, and economic reasons, did not complete basic education at the regular age. In this context, YAE presents specificities that require differentiated pedagogical approaches capable of considering students' life trajectories, previous experiences, and concrete needs. Given these particularities, traditional teaching methodologies centered on the transmission of content have proven insufficient to ensure meaningful learning, as well as to promote the engagement and school retention of this population (Noffs, 2025; Pereira; Pierro, 2024).

Within this scenario, active methodologies emerge as an innovative pedagogical alternative, grounded in the student's active participation in the process of knowledge construction. Such methodologies shift the focus from teaching to learning, stimulating autonomy, critical thinking, and problem-solving. According to Cunha et al. (2024), active methodologies can be understood as strategies that promote student protagonism through interactive, collaborative, and contextualized practices. In YAE, these approaches become even more relevant because they dialogue directly with the reality of students, favoring the appreciation of their knowledge and experiences (Lopes; Henn, 2022).

The incorporation of resources such as digital technologies, gamification, problem-based learning, and educational games has enhanced the application of active methodologies in YAE.

Studies indicate that the use of Digital Information and Communication Technologies (DICT) contributes significantly to digital inclusion and to the strengthening of learning, expanding possibilities for interaction and access to knowledge (Silva; Pereira, 2023; Rocha Santos, 2025). Furthermore, practices such as gamification have stood out as effective strategies for increasing student engagement, making the educational process more dynamic and motivating (Cruz et al., 2024; Trentin; Trentin, 2024).

Despite the advances, the implementation of active methodologies in YAE still faces significant challenges, such as insufficient teacher training, scarcity of teaching resources, and structural limitations of educational institutions. In addition, many educators encounter difficulties in adapting these methodologies to the specificities of the YAE population, which may compromise their effectiveness (Lima et al., 2025; Silva et al., 2025). In this sense, continuing teacher education and the development of contextualized pedagogical practices become fundamental to the success of these approaches (Ridolfi et al., 2025).

Another relevant aspect concerns the relationship between active methodologies and school retention. Dropout in YAE is a recurring problem, often associated with factors such as lack of motivation, learning difficulties, adverse socioeconomic conditions, and lack of identification with the school environment (Silva; Ribeiro; Silva, 2025). In this context, pedagogical practices that promote

engagement and the appreciation of the student can contribute significantly to reducing dropout rates. Studies indicate that strategies based on affectivity, motivation, and active student participation favor the construction of bonds with the school, strengthening their retention (Mattos; Santos, 2023; Viana et al., 2025).

Moreover, the use of active methodologies in the teaching of specific contents, such as mathematics and science, has demonstrated positive results in the performance of YAE students. The application of mathematical games, for example, contributes to the understanding of abstract concepts in a more accessible and meaningful way (Santos; Santos, 2025; Sena et al., 2025). Likewise, approaches based on problems and experimentation have favored the development of scientific thinking and the construction of knowledge in a contextualized manner (Lima et al., 2025).

Given this panorama, the following research question is defined as the research problem: in what way do active methodologies influence learning, engagement, and school retention in Youth and Adult Education? This problem is justified by the need to understand how innovative pedagogical practices can contribute to overcoming the challenges historically faced by YAE, especially with regard to school dropout and the low quality of learning.

Thus, the objective of this study is to analyze the impacts of active methodologies on the learning, engagement, and school retention of YAE students, considering their potentialities and limitations in the contemporary educational context. It also seeks to identify the main strategies used, as well as the challenges faced in their implementation, in order to contribute to the improvement of pedagogical practices in this educational modality.

The relevance of this research lies in the possibility of supporting reflections and more effective educational practices that meet the specific demands of YAE and promote a more inclusive, meaningful, and transformative education. By highlighting the impacts of active methodologies, it is expected to contribute to the strengthening of public policies and pedagogical actions aimed at improving the quality of education and guaranteeing the right to education for all. Finally, it is emphasized that the adoption of

these methodologies should not be understood as an isolated solution, but as part of a set of integrated actions involving teacher education, educational management, and public policies committed to equity and social justice (Losada; Silva, 2026; Urban; Frasson, 2025).

METHODOLOGY

The present research is characterized as a literature review with a qualitative approach, of a descriptive and exploratory nature, whose objective is to analyze the impacts of active methodologies on learning, engagement, and school retention in Youth and Adult Education (YAE). The choice of this methodological design is justified by the need to systematize and interpret recent scientific productions, allowing the construction of an expanded understanding of the investigated phenomenon in light of different contexts and theoretical approaches.

The investigation was guided by the following leading question: what are the impacts of active methodologies on learning, engagement, and school retention of students in Youth and Adult Education? Based on this question, the study sought to identify scientific evidence addressing both the potentialities and the challenges of implementing these methodologies in the context of YAE.

The process of searching for studies was carried out in the Scientific Electronic Library Online (SciELO), Latindex, and institutional repositories of universities, considering the relevance of these sources for the dissemination of scientific productions in the field of education. Data collection took place from March to April 2026, encompassing publications available within the time frame from 2022 to 2026, with the aim of ensuring the timeliness of the analyzed evidence.

To carry out the searches, controlled and uncontrolled descriptors were used, combined through the Boolean operators “AND” and “OR,” namely: “*Educação de Jovens e Adultos*” [Youth and Adult Education], “*EJA*” [YAE], “*metodologias ativas*” [active methodologies], “*aprendizagem significativa*” [“meaningful learning”], “*engajamento escolar*” [school engagement], “*permanência escolar*” [school retention], “*evasão escolar*” [school dropout] and “*inclusão digital*” [digital inclusion]. The search

strategies were adapted according to the specificities of each database, aiming to broaden the sensitivity and scope of the results.

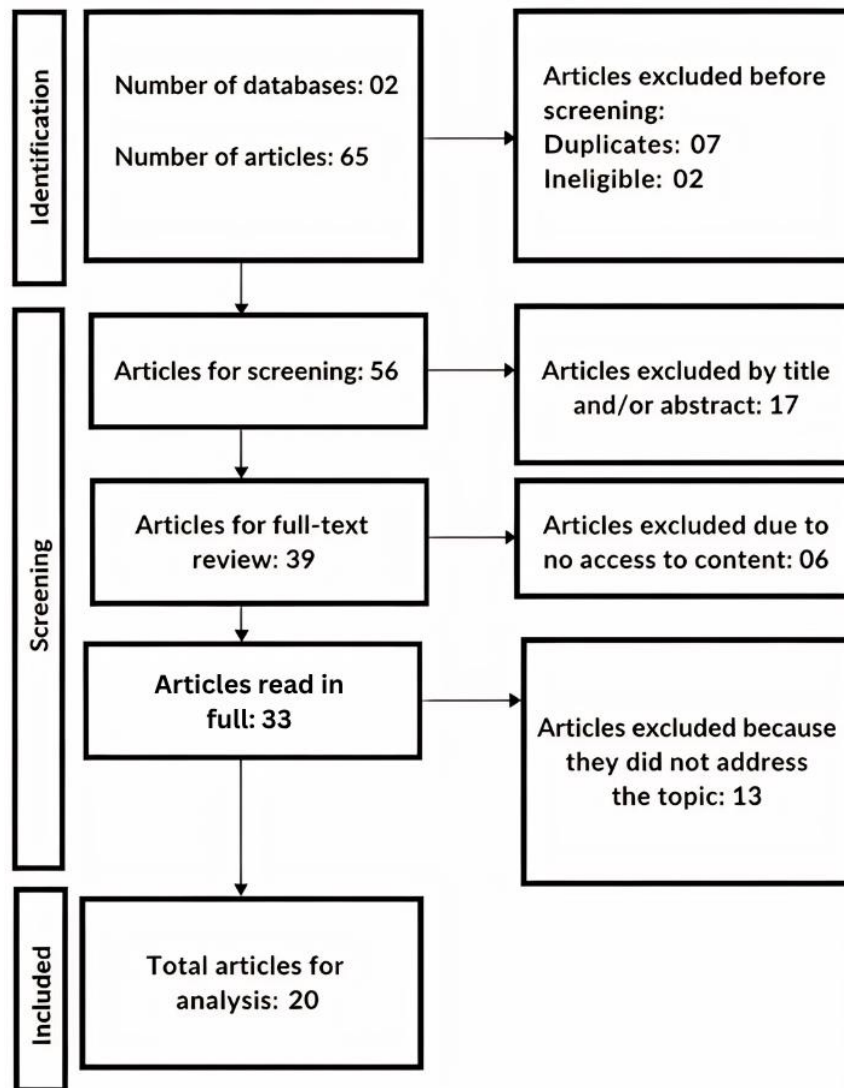
The inclusion criteria established were: (a) scientific articles, dissertations, and theses published between 2022 and 2026; (b) studies available in full text, in Portuguese, English, or Spanish; (c) research directly addressing the use of active methodologies in YAE; and (d) productions presenting discussions related to learning, engagement, or school retention. On the other hand, the exclusion criteria adopted were: (a) duplicate studies in the databases; (b) publications that did not deal specifically with YAE; (c) works with restricted access or unavailable in full text; and (d) productions that did not present methodological rigor or relevance to the proposed objective.

The selection of studies occurred in sequential stages: initially, titles and abstracts were read to identify thematic relevance; then, the full reading of the selected works was carried out in order to confirm the eligibility criteria. Subsequently, the studies were organized and critically analyzed, seeking to identify convergences, divergences, and gaps in the literature.

The flow of the study selection process, from identification to final inclusion of the analyzed productions, is systematized in Figure 1, which schematically presents the stages of the review, including the number of studies identified, selected, and excluded at each phase.

Figure 1

Flowchart of the study selection process



Source: Authors.

Data analysis was carried out using the thematic analysis technique, allowing the categorization of findings into central axes related to learning, engagement, and school retention. This stage made it possible to interpret the results in light of the adopted theoretical framework, contributing to the construction of a critical and well-founded synthesis on the investigated topic.

Finally, it is emphasized that the ethical principles of scientific research were respected, ensuring proper citation of authors and the reliability of the information presented, in accordance with the standards of the Associação Brasileira de Normas Técnicas (ABNT).

RESULTS AND DISCUSSION

The results of this review show that the use of active methodologies in Youth and Adult Education (YAE) has significant impacts on learning, engagement, and school retention, although such effects are conditioned by structural, pedagogical, and social factors. The analysis of the selected studies allowed the organization of the findings into three central thematic axes: (1) contributions to meaningful learning, (2) student engagement strategies, and (3) implications for school retention.

With regard to learning, the studies indicate that active methodologies favor the construction of knowledge in a contextualized and meaningful way, by considering the previous experiences of YAE students. Approaches such as problem-based learning, the use of digital technologies, and collaborative activities promote greater understanding of content, especially when linked to learners' reality (Cunha et al., 2024; Lopes; Henn, 2022). In this sense, it is observed that student protagonism contributes to the development of higher cognitive skills, such as critical thinking and intellectual autonomy, aspects essential for the YAE population (Ridolfi et al., 2025).

In addition, studies addressing the teaching of specific contents, such as mathematics and science, demonstrate that the use of active methodologies facilitates the assimilation of abstract concepts. The incorporation of educational games and playful strategies, for example, has proven effective in improving academic performance, by making the learning process more accessible and dynamic (Santos; Santos, 2025; Sena et al., 2025). Likewise, gamification has been highlighted as a relevant pedagogical resource capable of stimulating students' active participation and promoting greater interest in the contents (Cruz et al., 2024; Trentin; Trentin, 2024).

Regarding engagement, the results indicate that active methodologies contribute significantly to increasing students' motivation and participation in school activities. The use of interactive strategies, such as debates, group work, and digital resources, favors the construction of a more dynamic and participatory learning environment, which positively reflects on learners' involvement (Silva; Pereira, 2023; Rocha

Santos, 2025). Furthermore, valuing students' experiences and knowledge strengthens their self-esteem and sense of belonging, factors fundamental to engagement in YAE (Viana et al., 2025).

However, the studies also show that student engagement is directly related to teacher training and performance. Teachers who use active methodologies in a planned and contextualized way tend to obtain better results in student involvement. On the other hand, the absence of continuing education and the lack of knowledge about these strategies may compromise their effectiveness (Lima et al., 2025; Silva et al., 2025). Thus, the importance of investments in teacher training is highlighted, aiming at the proper implementation of these methodologies in the context of YAE.

With regard to school retention, the results demonstrate that active methodologies can contribute to the reduction of dropout rates by promoting a more welcoming and meaningful educational environment. The adoption of student-centered pedagogical practices favors the construction of bonds with the school, increasing motivation to continue studies (Mattos; Santos, 2023). In addition, strategies that integrate affective and social aspects, such as the recognition of learners' life trajectories, are shown to be fundamental for school retention (Viana et al., 2025).

However, dropout in YAE remains a complex challenge, influenced by multiple factors that go beyond the school environment, such as socioeconomic conditions, work schedules, and family responsibilities. In this context, although active methodologies play a relevant role, their effectiveness depends on articulation with public policies and broader institutional actions (Silva; Ribeiro; Silva, 2025; Losada; Silva, 2026). Thus, it is understood that school retention requires an integrated approach that considers both pedagogical aspects and students' living conditions.

Another relevant aspect identified in the studies concerns digital inclusion as an element that enhances active methodologies. The use of digital technologies expands possibilities of access to knowledge and favors interaction among students, contributing to learning and engagement (Silva; Pereira, 2023). However, inequality in access to technological resources still constitutes a significant

barrier, especially in contexts of social vulnerability, which may limit the benefits of these strategies (Rocha Santos, 2025).

The synthesis of the main findings of this review, considering the thematic axes and the contributions of the analyzed studies, is presented in Table 1, which systematizes the evidence related to learning, engagement, and school retention in YAE.

Table 1

Synthesis of the main review finding

Thematic axis	Evidence found	Applied strategies/methodologies	Observed impacts	References
Meaningful learning	The studies show that active methodologies promote the construction of knowledge in a contextualized way, considering the life experiences of YAE students, which favors greater understanding and retention of content.	Problem-based learning, collaborative learning, use of DICT, solving problem situations, and contextualized activities.	Development of critical thinking, intellectual autonomy, greater assimilation of abstract contents, and strengthening of meaningful learning.	Cunha <i>et al.</i> , 2024; Lopes; Henn, 2022; Ridolfi <i>et al.</i> , 2025
Teaching of specific contents	Improvement in performance is evidenced in areas such as mathematics and science, especially when playful and interactive strategies are used that facilitate the understanding of complex concepts.	Educational games, gamification, practical experimentation, use of digital resources, and investigative methodologies.	Improvement in academic performance, greater understanding of abstract concepts, more dynamic and accessible learning.	Santos; Santos, 2025; Sena <i>et al.</i> , 2025; Trentin; Trentin, 2024
Student engagement	Active methodologies contribute to the increase of students' participation, interest, and motivation by promoting interactive and dialogical practices.	Debates, group work, use of digital technologies, gamification, participatory methodologies.	Increased motivation, active participation, strengthening of self-esteem and sense of school belonging.	Silva; Pereira, 2023; Rocha Santos, 2025; Viana <i>et al.</i> , 2025

Teacher education and pedagogical practices	The effectiveness of active methodologies is directly related to teacher education and the capacity for contextualized pedagogical planning.	Continuing education, innovative pedagogical practices, integration between theory and practice, use of diversified teaching resources.	Improvement in pedagogical mediation, greater effectiveness in the application of methodologies, and expansion of learning possibilities.	Lima et al., 2025; Silva et al., 2025; Ridolfi et al., 2025
School retention	It is observed that innovative pedagogical practices contribute to the reduction of school dropout by making the educational environment more meaningful and welcoming.	Student-centered strategies, appreciation of life experiences, affective and inclusive practices.	Reduction of dropout, strengthening of the bond with the school, increase in retention and continuation of studies.	Mattos; Santos, 2023; Viana et al., 2025
Structural and social challenges	Dropout and learning difficulties are related to external factors, such as socioeconomic conditions, work, and family responsibilities.	Educational public policies, integrated institutional actions, and psychosocial support.	Limitation of the effectiveness of active methodologies when not articulated with broad student support policies.	Silva; Ribeiro; Silva, 2025; Losada; Silva, 2026
Digital inclusion	The use of digital technologies enhances learning and engagement, but still faces barriers related to unequal access.	Use of digital platforms, multimedia resources, and virtual learning environments.	Expansion of access to knowledge, greater interaction and dynamism in classes, though with limitations in vulnerable contexts.	Silva; Pereira, 2023; Rocha Santos, 2025

Source: Authors (2026)

Additionally, Table 2 presents the main active methodologies identified in the studies, as well as their applications and impacts in the context of YAE, allowing a comparative view of the strategies used and their results.

Table 2

Active methodologies applied in YAE and their impacts

Active methodology	Pedagogical characterization	Application in the YAE context	Potentialities	References
Problem-Based Learning (PBL)	Structured from the resolution of real problems, promoting investigation, reflection, and collective construction of knowledge.	Use of problem situations related to students' daily life, such as work, health, and citizenship.	Favors the development of critical thinking, autonomy, and meaningful learning, bringing theory and practice closer together.	Cunha <i>et al.</i> , 2024; Lima <i>et al.</i> , 2025
Collaborative Learning	Based on interaction among students for the joint construction of knowledge.	Development of group activities, debates, and interdisciplinary projects.	Stimulates cooperation, communication, respect for differences, and collective construction of knowledge.	Lopes; Henn, 2022; Ridolfi <i>et al.</i> , 2025
Gamification	Incorporates game elements, such as challenges and rewards, into the educational process.	Application in pedagogical activities, especially in mathematical and digital contents, making teaching more dynamic.	Increases engagement, motivation, and students' active participation.	Cruz <i>et al.</i> , 2024; Trentin; Trentin, 2024
Educational games	Use of playful resources as a teaching strategy to facilitate content understanding.	Aplicação no ensino de matemática e ciências, por meio de jogos físicos e digitais.	Application in the teaching of mathematics and science through physical and digital games.	Santos; Santos, 2025; Sena <i>et al.</i> , 2025

Use of Digital Technologies (DICT)	Integrates technological resources into the teaching-learning process, expanding forms of access to knowledge.	Use of digital platforms, applications, videos, and virtual learning environments.	Promotes digital inclusion, expands access to information, and diversifies pedagogical strategies.	Silva; Pereira, 2023; Rocha Santos, 2025
Project-Based Learning (PjBL)	Develops knowledge through the elaboration of projects with a practical and contextualized purpose.	Projects focused on students' social reality, involving daily-life themes and community actions.	Stimulates protagonism, interdisciplinarity, and practical application of knowledge.	Leite; Morais, 2025; Silva et al., 2025
Participatory methodologies	Grounded in dialogue, problematization, and the active participation of students in the educational process.	Conversation circles, case studies, debates, and contextualized reflective practices.	Strengthens the bond between educator and learner and values students' prior knowledge.	Viana et al., 2025; Mattos; Santos, 2023
Blended learning	Combines face-to-face and online activities, integrating different teaching modalities.	Complementary use of virtual environments with in-person meetings in YAE.	Makes teaching more flexible, favors autonomy, and expands learning possibilities.	Silva et al., 2025; Urban; Frasson, 2025

Source: Authors (2026)

In general, the results show that active methodologies constitute a promising approach for YAE, by promoting more meaningful learning, increasing student engagement, and contributing to their retention in school. However, their effectiveness is conditioned by overcoming structural challenges and the implementation of contextualized pedagogical practices that consider the specificities of this population.

The discussion of the findings shows that the adoption of active methodologies in Youth and Adult Education (YAE) represents a relevant pedagogical strategy to face historical challenges related to learning, engagement, and school retention. The critical analysis of the literature allows a deeper understanding of these impacts based on three fundamental axes: (1) active methodologies and meaningful learning in YAE; (2) student engagement and innovative pedagogical practices; and (3) school retention and coping with dropout. These subthemes are articulated with one another and reflect the complexity of the educational process in this educational modality, requiring an integrated and contextualized approach.

ACTIVE METHODOLOGIES AND MEANINGFUL LEARNING IN YAE

With regard to meaningful learning, it is observed that active methodologies play a central role in resignifying pedagogical practices in YAE. In this sense, Cunha et al. (2024) highlight that such methodologies promote the construction of knowledge based on the student's active participation, breaking with the traditional model centered on content transmission. This perspective is particularly relevant in YAE, since students bring with them life experiences that can be incorporated into the teaching-learning process, favoring the contextualization of content.

Corroborating this idea, Lopes and Henn (2022) emphasize that meaningful learning occurs when new knowledge relates in a non-arbitrary way to learners' prior knowledge. In YAE, this relationship is enhanced by active methodologies, which value the student's experience as the starting point for the construction of knowledge. In this way, teaching ceases to be a mechanical process and becomes dynamic, reflective, and contextualized.

In addition, Ridolfi et al. (2025) point out that the adoption of pedagogical practices based on critical literacy contributes to the development of students' intellectual autonomy. By encouraging the problematization of reality and critical reflection, active methodologies promote not only the learning of contents, but also the formation of subjects capable of acting consciously and transformatively in society.

Another relevant aspect concerns the application of these methodologies in specific areas of knowledge. Santos and Santos (2025) demonstrate that the use of educational games in mathematics teaching facilitates the understanding of abstract concepts, making learning more accessible. Similarly, Sena et al. (2025) point out that inclusive strategies in science teaching contribute to the construction of knowledge in a more meaningful and contextualized way.

However, Lima et al. (2025) warn that the effectiveness of active methodologies depends on their adequate implementation, which requires pedagogical planning and teacher education. The absence of these elements may compromise the expected results, highlighting the need for investments in teacher training and the professional development of educators.

Therefore, the discussion indicates that active methodologies constitute a powerful approach to promote meaningful learning in YAE, provided that they are applied in a contextualized way and aligned with the specificities of the population served.

STUDENT ENGAGEMENT AND INNOVATIVE PEDAGOGICAL PRACTICES

Student engagement emerges as one of the main benefits associated with the use of active methodologies in YAE. In this context, Silva and Pereira (2023) show that the use of digital technologies expands the possibilities of interaction and participation for students, contributing to a more dynamic and motivating learning environment. The incorporation of Digital Information and Communication Technologies (DICT) favors not only access to knowledge, but also the construction of new ways of learning and teaching.

Additionally, Rocha Santos (2025) highlights that digital inclusion is a determining factor for the engagement of YAE students, especially in a context marked by the growing digitalization of society. By enabling access to technological resources, active methodologies contribute to the reduction of educational inequalities and promote greater participation of learners.

With regard to pedagogical strategies, Cruz et al. (2024) emphasize that gamification has proven to be an effective tool for stimulating students' interest and motivation. By incorporating playful elements into the educational process, this approach makes learning more attractive and meaningful, favoring student engagement. Complementarily, Trentin and Trentin (2024) point out that the use of games in mathematics teaching contributes to students' active participation, promoting more interactive learning.

Another relevant factor is the affective dimension in the educational process. Viana et al. (2025) emphasize that self-esteem and the sense of belonging are fundamental elements for the engagement of YAE students. Pedagogical practices that value dialogue, listening, and respect for learners' experiences contribute to the construction of positive bonds with the school, favoring their participation in school activities.

However, Silva et al. (2025) point out that student engagement is also conditioned by structural factors, such as the availability of resources and teacher education. The absence of adequate infrastructure and professional training may limit the implementation of active methodologies, compromising their results.

In this sense, Ridolfi et al. (2025) reinforce the importance of continuing teacher education as an essential element for the success of innovative pedagogical practices. Trained teachers are able to plan and execute strategies that promote student engagement, contributing to the improvement of the quality of education in YAE.

Thus, the discussion shows that student engagement in YAE is strongly influenced by the adoption of active methodologies, provided that they are accompanied by adequate structural and pedagogical conditions.

SCHOOL RETENTION AND COPING WITH DROPOUT IN YAE

School retention in YAE constitutes one of the greatest challenges faced by this educational modality, with dropout being a recurrent and multifactorial phenomenon. In this context, Silva, Ribeiro,

and Silva (2025) highlight that factors such as socioeconomic conditions, work schedules, and family responsibilities directly impact the continuity of studies, requiring pedagogical approaches that consider these specificities.

Faced with this scenario, Mattos and Santos (2023) argue that pedagogical practices based on affectivity and the valuing of students are fundamental to promoting school retention. By establishing positive bonds between educator and learner, active methodologies contribute to the construction of a more welcoming and inclusive school environment, favoring the continuity of studies.

In addition, Viana et al. (2025) emphasize that students' motivation and self-esteem are directly related to school retention. Pedagogical strategies that promote recognition of learners' life trajectories and achievements contribute to strengthening their identity and engagement with the school.

On the other hand, Losada and Silva (2026) show that school dropout in YAE is associated with structural factors that go beyond the school environment, such as social inequalities and the lack of effective public policies. In this sense, although active methodologies play a relevant role, their effectiveness depends on articulation with institutional actions and broader educational policies.

Leite and Morais (2025) highlight that the integration between YAE and programs such as PROEJA can expand opportunities for school retention by offering education more aligned with the needs of the world of work. The use of active methodologies in this context enhances learning and contributes to valuing students.

Moreover, Urban and Frasson (2025) point out that the adoption of innovative pedagogical practices is directly related to the improvement of educational indicators in YAE. The use of active methodologies favors the construction of more meaningful teaching, which can positively impact student retention.

However, Lima et al. (2025) warn that the implementation of these methodologies still faces challenges, such as resistance to change and lack of resources. Such limitations highlight the need for

public policies that encourage pedagogical innovation and guarantee adequate conditions for its application.

Therefore, the discussion demonstrates that active methodologies can contribute significantly to school retention in YAE, provided that they are articulated with broader strategies to cope with dropout, involving pedagogical, social, and institutional aspects.

CONCLUSION

The present research aimed to analyze the impacts of active methodologies on learning, engagement, and school retention in Youth and Adult Education (YAE), in light of recent evidence from the literature. Throughout the study, the goal was to understand how these pedagogical approaches contribute to the resignification of the educational process, considering the specificities of this population. In this sense, it is recalled that the central focus was on identifying the potentialities and limitations of active methodologies, as well as on analyzing their implications in the contemporary educational context.

In response to the guiding question, the findings show that such methodologies exert a significant positive influence on these three axes. With regard to learning, it was observed that active strategies favor the construction of more meaningful knowledge by promoting students' active participation and the articulation between theory and practice. As for engagement, there was an increase in learners' motivation, participation, and interest, especially when interactive and contextualized approaches are used. In relation to school retention, it was found that innovative pedagogical practices contribute to the reduction of dropout by strengthening bonds and making the school environment more welcoming and relevant.

The main results of this review indicate that methodologies such as problem-based learning, gamification, use of digital technologies, collaborative learning, and interdisciplinary projects have positive impacts on the performance and participation of YAE students. In addition, it was evidenced that valuing learners' life experiences and adopting dialogical pedagogical practices are determining factors

for the success of these approaches. However, important challenges were also identified, such as the need for continuing teacher education, structural limitations, and inequalities in access to technologies, which may compromise the effectiveness of active methodologies.

With regard to the contributions of the research, the systematization of updated evidence on the use of active methodologies in YAE stands out, offering theoretical and practical support for educators, managers, and public policy makers. The study contributes to strengthening more inclusive, critical, and contextualized pedagogical practices by highlighting the importance of approaches that place the student at the center of the educational process. Furthermore, it reinforces the need for integration between pedagogical innovation, teacher education, and educational policies committed to equity and quality in education.

Despite the advances identified, it is recognized that the effectiveness of active methodologies in YAE depends on a set of factors that go beyond the pedagogical sphere, including students' socioeconomic conditions, school infrastructure, and institutional support. Thus, it becomes essential that the implementation of these methodologies be accompanied by public policies that guarantee adequate conditions for their application, as well as investments in teacher education and digital inclusion, aiming to expand their positive impacts.

Finally, it is suggested that future research further explores the empirical analysis of the application of active methodologies in specific YAE contexts, considering different regional realities and student profiles. It is also recommended that longitudinal studies be carried out to assess the long-term effects of these methodologies, especially with regard to school retention and the development of competencies. Investigations that explore the integration between active methodologies and public educational policies also prove relevant, contributing to the construction of more effective and sustainable strategies for youth and adult education.

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SELF-DIRECTED LEARNING IN CONTEMPORARY EDUCATION: CHARACTERISTICS, ADVANTAGES, AND CHALLENGES IN LIGHT OF INSTRUCTIONAL DESIGN AND DIGITAL TECHNOLOGIES <https://doi.org/10.63330/aurumpub.046-009>**Cleyton Henrique Teodoro Garcia¹****Abstract**

This article analyzes self-paced learning, also known as self-directed learning, highlighting its characteristics, advantages, and disadvantages in the contemporary educational context. Based on authors such as Knowles (1975) and Filatro (2020), as well as studies on instructional design and technology use, the article discusses how learner autonomy has been enhanced by pedagogical practices mediated by virtual environments and digital resources. The research presents a theoretical analysis based on three axes: the conceptualization of self-paced learning, its implications for instructional design, and the role of digital technologies. The results indicate that, although autonomy favors flexibility, personalization, and protagonism, challenges remain related to self-regulation, motivation, and pedagogical monitoring. It is concluded that a balance between autonomy and teacher mediation is essential to maximize the benefits of self-paced learning.

Keywords: Self-paced Learning, Autonomy, Online Education, Instructional Design.

INTRODUCTION

In recent decades, social, technological, and cultural transformations have brought about profound changes in teaching and learning processes, requiring educational institutions to critically review their pedagogical practices. The traditional model of teaching, centered on the figure of the teacher and the uniform transmission of content to a heterogeneous group of students, has proved limited in the face of

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the multiple ways of learning and the different cognitive rhythms present in the classroom. In this context, many students end up showing significant learning gaps, not because of a lack of ability, but because they are trying to adapt to a teaching format that does not take their singularities and learning styles into account.

The excerpt presented highlights this problem by emphasizing that, in traditional teaching, planning is generally directed toward the collective, disregarding individual specificities. This homogenization of the educational process can generate frustration, since students tend to interpret their difficulties as personal failures rather than as limitations of the method used. In contrast, adaptive learning, supported by educational technologies and innovative methodologies, emerges as an alternative capable of respecting each student's pace, interests, and needs, promoting a more autonomous and meaningful educational trajectory.

Thus, it becomes essential to discuss the concepts of **individualized learning**, **differentiated learning**, and **personalized learning**, understanding their specificities and their contributions to the development of more inclusive, learner-centered pedagogical practices. The analysis of the statements below is intended precisely to reflect on these different educational paradigms and their implications for the contemporary teaching-learning process.

DEVELOPMENT

CONCEPTS AND CHARACTERISTICS OF SELF-DIRECTED LEARNING

Self-directed learning represents a pedagogical approach that has gained increasing relevance in contemporary educational discussions, especially in light of the transformations imposed by the knowledge society and the expansion of digital technologies. This conception shifts the focus from traditional teaching—centered on the teacher and the linear transmission of content—to a model in which the learner assumes an active, critical, and reflective role in the construction of their own educational path.

According to Knowles (1975),

“one of the principal theorists of adult education, self-directed learning is characterized by the process in which the individual identifies their learning needs, establishes goals, selects appropriate strategies, chooses study resources, and continuously evaluates their progress and results. It is, therefore, a practice that requires intellectual autonomy, self-discipline, time management, and the capacity for self-reflection, elements that are indispensable for the development of an active stance toward knowledge.” (Knowles, 1975, n.p.)

Filatro (2020) complements this perspective by emphasizing

“the role of instructional design as a mediator between student autonomy and the pedagogical structure that sustains the educational process. For the author, it is up to the educator—and to the pedagogical planning teams—to create flexible learning pathways, accessible resources, interactive activities, and meaningful digital environments that stimulate curiosity, critical thinking, and the student’s co-responsibility for their own learning. Thus, instructional design ceases to be a mere organizer of content and becomes a strategic element in promoting autonomy and the personalization of learning.” (Filatro, 2020, n.p.)

Among the most relevant competencies developed in this model are intrinsic motivation, intellectual curiosity, resilience in the face of cognitive challenges, and the capacity for self-assessment. These dimensions, when articulated, allow the learner to develop not only technical knowledge, but also metacognitive and socio-emotional competencies, expanding their ability to learn throughout life—a fundamental principle of continuing education and critical civic formation.

In digital and hybrid learning contexts, self-management of learning becomes even more relevant. The contemporary student, exposed to multiple sources of information and an increasing volume of data, needs to develop skills in curation, critical selection of content, and the organization of study routines. In this scenario, the figure of the teacher does not lose importance; on the contrary, it is transformed. The teacher begins to act as a mediator, guide, and facilitator of learning experiences, helping the student to construct meaning, reflect on their own progress, and develop autonomous and effective study strategies.

In this way, self-directed learning is not limited to the student’s simple operational autonomy, but is consolidated as a process of cognitive and reflective empowerment that seeks to promote subjects

capable of understanding, intervening in, and transforming reality. From a humanizing and emancipatory perspective, this approach aligns with the principles of an education that values the singularity of each learner, shared responsibility, and integral formation, thus contributing to the consolidation of pedagogical practices that are more equitable, meaningful, and socially relevant.

ADVANTAGES OF SELF-DIRECTED LEARNING

The main advantages of self-directed learning are directly related to the promotion of autonomy, self-regulation, and personalization of the educational process. By taking an active role in their own education, the student develops greater awareness of their way of learning, strengthens their decision-making capacity, and broadens their sense of responsibility regarding their own educational trajectory. This active stance makes possible more meaningful learning, since knowledge comes to be constructed on the basis of personal goals, previous experiences, and individual interests, in line with the principle of learning as a continuous and self-referential process.

According to Moran (2018),

“self-directed learning fosters the development of metacognitive competencies, especially the ability to understand, monitor, and control one’s own cognitive processes. Metacognition, in this context, acts as a structuring element for learning to learn, allowing the student to become the subject of their own formation and to adopt strategies that maximize their performance and engagement. This aspect is particularly relevant in online or hybrid learning environments, in which the student needs to plan their actions, establish goals, evaluate results, and continually adjust study paths.” (Moran, 2018, n.p.)

In self-instructional virtual courses, especially those without constant tutoring, self-directed learning proves essential to the success of the educational process. In these contexts, the student needs to develop skills in planning, time organization, discipline, and self-criticism, assuming a stance of protagonism and responsibility. The development of these competencies reinforces the idea that learning is not restricted to the school environment, but extends to everyday and professional life, contributing to the formation of autonomous, critical, and reflective subjects.

Another noteworthy point refers to the temporal and spatial flexibility that characterizes this learning modality. By allowing the learner to study at their own pace, according to their availability and preferences, self-directed learning breaks with the limits imposed by the traditional classroom and promotes a more dynamic, inclusive, and adaptable process. This flexibility broadens access to education, values the diversity of cognitive styles, and contributes to the strengthening of lifelong learning, one of the pillars of contemporary education.

In summary, the advantages of self-directed learning go far beyond operational autonomy; they encompass the formation of an autonomous, conscious subject committed to their own intellectual and social development. It is an approach that stimulates responsibility, fosters self-reflection, and enhances student engagement, making the educational process more humanized, contextualized, and transformative.

DISADVANTAGES AND CHALLENGES

Despite its numerous advantages, self-directed learning also presents significant challenges that need to be carefully considered in the planning and implementation of pedagogical practices based on this paradigm. One of the main obstacles is related to the absence of constant guidance, which can generate feelings of isolation, demotivation, and dropout, especially in online courses that do not provide tutoring or continuous teacher mediation. The presence of the teacher, even in virtual environments, still plays a fundamental role in sustaining the pedagogical bond, offering feedback, guidance, and emotional support to the student.

According to the study “*Self-Directed Learning and Online Courses without Tutoring*” (2023), the lack of immediate feedback and the scarcity of social interactions between students and teachers tend to negatively impact participants’ engagement and persistence. The absence of a support network and formative monitoring reduces the sense of belonging and weakens intrinsic motivation, which is precisely one of the pillars of self-directed learning. Thus, it is essential that student autonomy be accompanied by

mechanisms of pedagogical and socio-emotional support, so that the educational process remains balanced and meaningful.

Another recurring challenge lies in the cognitive overload to which students are subjected, especially in digital contexts characterized by a high volume of information and multiple content sources. The need to select, filter, interpret, and organize data autonomously can generate mental fatigue and compromise the depth of learning, particularly when the student does not possess consolidated strategies for self-regulation and time management. This reality shows that autonomy, although desirable, is not a starting point, but a competence to be gradually developed throughout the educational path.

In the face of these challenges, instructional design assumes a strategic role in mediating between autonomy and pedagogical support. It is through well-structured design that it becomes possible to offer clear guidance, progressive learning pathways, guided activities, and interactive multimedia resources capable of keeping the student engaged and reducing the feeling of isolation. In addition, instructional design can integrate automated and collaborative feedback strategies, creating opportunities for interaction and reflection that strengthen the sense of belonging and the continuity of learning.

Thus, more than promoting independence, self-directed learning requires a balance between freedom and guidance, ensuring that the student has adequate cognitive, emotional, and technological conditions to sustain their own formative process. The challenge of contemporary education, therefore, is to articulate autonomy and support, so that self-management of learning does not turn into pedagogical solitude, but into an experience of active, critical, and shared construction of knowledge.

INSTRUCTIONAL DESIGN AND DIGITAL TECHNOLOGIES

Instructional design, as highlighted by Filatro (2020),

“constitutes a strategic and interdisciplinary field within education, responsible for planning, structuring, and mediating learning experiences in an intentional and meaningful way. More than a simple organization of content, instructional design proposes to design educational experiences that promote active student participation, the development of autonomy, and the construction of contextualized knowledge. Its function is, therefore, to integrate theory, methodology, and technology, ensuring coherence between pedagogical objectives, didactic resources, and learner needs.” (Filatro, 2020, n.p.)

With the advances in digital information and communication technologies (DICTs), the possibilities for interaction, collaboration, and personalization in educational processes have expanded considerably. Virtual learning environments, adaptive platforms, and multimodal resources offer opportunities for students to manage their own paths, interact with peers and teachers, and access different types of content dynamically. This technological transformation has enabled the emergence of more flexible and learner-centered pedagogical models, favoring practices that stimulate protagonism and self-management of knowledge.

However, the study *“Impact of Technologies on Instructional Design”* (2023) warns that the mere insertion of technological resources is not, by itself, sufficient to guarantee autonomy and meaningful learning. Technology, when used in a manner disconnected from pedagogical planning can generate distraction, cognitive overload, and even exclusion, especially when students do not have consolidated digital skills. Thus, the efficient use of technologies requires curation, intentionality, and systematic monitoring, ensuring that resources function as instruments of mediation and not of fragmentation of the formative process.

From this perspective, the role of the instructional designer, or of the educator who performs this function, becomes fundamental. It is up to this professional to conceive educational paths that reconcile freedom and structure, balancing student autonomy with the guidance necessary for cognitive development. This implies designing personalized learning pathways, establishing clear progression criteria, defining moments for feedback, and promoting interactions that strengthen student engagement and sense of belonging.

Therefore, instructional design is not limited to a technical component, but is consolidated as a pedagogical and ethical dimension aimed at promoting humanized, meaningful, and inclusive learning experiences. Its greatest challenge is to ensure that technology acts as a mediator of knowledge—and not as a barrier—sustaining innovative educational practices that value critical thinking, autonomy, and collaboration as pillars of contemporary education.

FINAL CONSIDERATIONS

Self-directed learning stands as one of the most promising approaches in contemporary educational practices, because it promotes intellectual autonomy, self-regulation, and learner protagonism. In an educational scenario marked by the diversity of contexts and constant technological transformation, this perspective contributes to the formation of critical, reflective subjects capable of managing their own learning processes throughout life. It is a movement that transcends the act of studying independently, since it involves the development of metacognitive, socio-emotional, and ethical competencies that sustain meaningful and continuous learning.

However, for this modality to be effectively realized, it is essential that it be accompanied by carefully planned pedagogical and technological strategies that take into account students' singularities, their learning rhythms, and their conditions of access. Autonomy, when not sustained by adequate mediation, can generate feelings of isolation, distraction, and demotivation, compromising the student's engagement and permanence in the educational process. Thus, self-directed learning should be understood not as an absence of mediation, but as a reconfiguration of the pedagogical relationship, in which the learner's freedom is balanced by pedagogical support and reflective dialogue.

In this context, instructional design emerges as an essential structuring and mediating element, articulating technology, methodology, and pedagogical intentionality. It is responsible for creating accessible, flexible, and collaborative learning environments capable of balancing autonomy and guidance, offering educational paths that stimulate reflection, engagement, and a sense of belonging. By


integrating technological resources in an ethical and intentional manner, instructional design contributes to the construction of humanized, inclusive, and transformative learning experiences that value dialogue, personalization, and critical thinking.

It is concluded, therefore, that self-directed learning represents not only a methodological innovation, but a new educational paradigm, centered on co-responsibility between educator and learner, on the valorization of autonomy as an emancipatory practice, and on the promotion of an education directed toward the integral development of the human being. This model, by integrating autonomy, dialogue, and critical reflection, reaffirms the role of education as a process of continuous formation, capable of preparing the individual to act with awareness, sensitivity, and protagonism in the contemporary world.

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PLAYING, COEXISTING, AND RESPECTING: LUDIC-PEDAGOGICAL STRATEGIES IN EARLY CHILDHOOD SEX EDUCATION AS AN INSTRUMENT OF SOCIALIZATION AND RIGHTS PROTECTION <https://doi.org/10.63330/aurumpub.046-010>**Káthia Susana Almeida¹****Abstract**

Sex education in early childhood constitutes a topic of great relevance in the contemporary educational context, especially in light of challenges related to the comprehensive protection of children and the formation of individuals who are aware of their rights. This article aims to analyze the role of ludic-pedagogical strategies in the development of early childhood sex education, considering their contribution to socialization, the construction of autonomy, and the prevention of violence. The research is grounded in a qualitative approach of a bibliographic nature, anchored in authors from the sociology of childhood, education, and public policies for child protection. The articulation between sex education and the defense of rights proves to be fundamental in confronting child sexual violence, particularly in contexts where abuse occurs within the family environment. The study engages with concepts from the sociology of childhood, which understands the child as an active subject, and with the notion of habitus, proposed by Pierre Bourdieu, to explain how social dispositions influence practices and perceptions from childhood onward. The results indicate that the incorporation of playful practices in sexuality education contributes to emotional development, the strengthening of bonds, and the construction of a culture of protection. It is concluded that early childhood sex education, mediated by sensitive and structured pedagogical approaches, is an indispensable tool for the child's holistic development and for the promotion of a more just and conscious society.

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Keywords: Early Childhood Sex Education, Playfulness, Sociology of Childhood, Habitus, Children's Rights.

INTRODUCTION

Sex education in early childhood has gained prominence in contemporary academic and educational debates, especially in view of the need to promote the child's holistic development in its multiple dimensions. Far from being restricted to biological aspects, sex education involves emotional, social, and cultural issues, contributing to the formation of individuals who are more aware of themselves and of others. In this sense, addressing this topic from the earliest years of life becomes fundamental for the construction of relationships based on respect, autonomy, and human dignity.

Historically, child sexuality has been marked by silences and taboos, often being neglected in family and school contexts. This scenario contributed to the perpetuation of misinformation and to children's vulnerability in situations of violence and abuse. Currently, however, a movement toward re-signification of this field can be observed, recognizing the importance of addressing the topic in an age-appropriate manner, using accessible language and sensitive pedagogical approaches.

In this context, the school assumes a central role as a space for socialization and knowledge construction. It is within this environment that children expand their experiences and establish relationships with different subjects, making it also a privileged setting for the development of educational practices aimed at sex education. Thus, the school institution is responsible not only for transmitting content but also for promoting values such as respect, empathy, and recognition of personal boundaries.

At the same time, the family plays an essential role in this process, being the child's first nucleus of socialization. The articulation between school and family is therefore indispensable for sex education to occur in a continuous, coherent, and effective manner. When there is dialogue and alignment between these spaces, the capacity for protection and guidance of children increases significantly.

One of the main challenges in addressing early childhood sex education lies in the resistance of educators and caregivers, often influenced by cultural or religious beliefs or by a lack of adequate training. This resistance may result in the omission of the topic or in inappropriate approaches, compromising the educational and preventive potential of this practice.

In this regard, ludic-pedagogical strategies emerge as effective alternatives for addressing sexuality in childhood. Play, as the child's own language, enables the construction of knowledge in a natural, meaningful, and contextualized way. Through games, stories, and interactive activities, it is possible to work on concepts such as body awareness, boundaries, consent, and respect.

Furthermore, the use of play contributes to children's emotional and social development, favoring the expression of feelings and the construction of bonds. This aspect is especially relevant when considering that many situations of violence are not directly verbalized by children but may be expressed through behaviors and play.

Sex education is also directly related to the defense of children's rights, particularly with regard to protection against violence. By knowing their bodies and understanding their rights, children become more capable of identifying risk situations and seeking help. In this way, sex education is configured as an important instrument for prevention and the promotion of citizenship.

From a theoretical perspective, this study engages with the sociology of childhood, which recognizes the child as an active subject and producer of culture, breaking with adult-centered views. In addition, Pierre Bourdieu's concept of habitus is used to understand how social experiences influence the formation of dispositions and practices from childhood onward.

Given this scenario, the present article aims to analyze the role of ludic-pedagogical strategies in early childhood sex education, considering their contribution to the child's holistic development and to the promotion of a culture of respect and protection. It thus seeks to contribute to the advancement of academic discussions and to the qualification of educational practices in this field.

LITERATURE REVIEW

SEX EDUCATION IN EARLY CHILDHOOD AND ITS FORMATIVE ROLE

Sex education in early childhood should be understood as an essential formative process for the child's holistic development, involving biological, emotional, social, and cultural dimensions. Recent studies highlight that an appropriate approach to sexuality from the earliest years of life contributes to the construction of identity, autonomy, and body awareness. In this sense, sex education should not be treated as an isolated content but as an integral part of pedagogical practices aimed at forming critical subjects who are aware of their rights. Moreover, when addressed in a continuous and contextualized manner, it favors the construction of healthier and more respectful relationships from childhood onward (Brazil, 2017).

The absence of dialogue about sexuality remains one of the main obstacles to children's healthy development, especially in contexts marked by taboos and misinformation. Recent research indicates that silence surrounding the topic can generate insecurity, fear, and difficulty in expression, compromising emotional and social development. Thus, the inclusion of sex education in the school environment becomes fundamental for breaking down these barriers and promoting a welcoming and informative learning space. This approach also contributes to the normalization of the topic, reducing prejudice and expanding access to knowledge (UNESCO, 2018).

Another relevant aspect concerns the role of sex education in the prevention of violence, especially child sexual abuse. Recent data show that children who receive adequate guidance about their bodies and boundaries are better able to identify risk situations and seek help. In this context, sex education acts as a protective tool, strengthening the child's autonomy and emotional security. In addition, it contributes to the development of communicative skills that enable the expression of discomfort and the reporting of violent situations (WHO, 2020).

The implementation of sex education in the school context is supported by contemporary educational guidelines that value students' holistic development. The National Common Core Curriculum,

for example, emphasizes competencies related to self-care, empathy, and respect, which directly dialogue with the objectives of sex education. Although it does not explicitly address the topic as a specific subject, the BNCC opens space for interdisciplinary approaches that integrate the theme into daily school life, promoting broader and more meaningful education (Brazil, 2017).

Finally, sex education in childhood should be understood as a fundamental right of the child, directly related to dignity and healthy development. Recent literature reinforces that ensuring access to appropriate information about the body, emotions, and social relationships is a way of promoting citizenship from the earliest years of life. Thus, responsibility for its implementation must be shared among school, family, and society, within a perspective of comprehensive protection and human development (UNICEF, 2021).

LUDIC-PEDAGOGICAL APPROACHES AS A TEACHING AND PREVENTION STRATEGY

Ludic-pedagogical approaches play a fundamental role in the teaching-learning process in early childhood education, especially when dealing with complex content such as sex education. Play is recognized as the child's primary form of expression, through which they interpret the world, construct meanings, and develop cognitive and social skills. In this context, playfulness presents itself as an effective strategy for mediating knowledge, making learning more meaningful and accessible to children (Kishimoto, 2020).

In the field of sex education, the use of playful activities allows themes such as the body, boundaries, and respect to be addressed in a natural and age-appropriate manner. Recent studies indicate that methodologies based on games, stories, and dynamics foster children's active participation, creating a safe environment for dialogue and knowledge construction. This approach helps reduce the embarrassment associated with the topic and enables more effective learning based on experience and interaction (Silva; Souza, 2021).

Moreover, play plays an important role in children's emotional development, functioning as a means of expressing feelings and experiences. Contemporary research indicates that through play, children can externalize situations that they are often unable to verbalize, which can assist educators in identifying signs of vulnerability or violence. Thus, playfulness also becomes a tool for sensitive listening and welcoming within the school environment (Oliveira; Costa, 2022).

Another relevant aspect is the relationship between playfulness and violence prevention. Recent literature shows that playful pedagogical practices contribute to teaching fundamental concepts such as consent, privacy, and respect for the body. When integrated into children's daily lives, these contents strengthen their ability to recognize inappropriate situations and act safely. Thus, playfulness not only teaches but also protects (Santos; Silva; Souza, 2020).

Finally, it is emphasized that the effectiveness of playful strategies is directly related to educators' training. Recent studies stress the importance of teacher education for the conscious and intentional use of play as a pedagogical tool. It is essential that teachers understand the potential of these methodologies and know how to apply them appropriately, ensuring that play is used as an instrument of learning and development rather than merely as a recreational activity (Rodrigues; Almeida, 2023).

CHILDHOOD, HABITUS, AND THE SOCIAL CONSTRUCTION OF THE CHILD

Contemporary sociology of childhood proposes an understanding of the child as an active subject in the construction of social reality, breaking with traditional views that placed children merely as passive recipients of norms and values. This perspective recognizes that children interpret, re-signify, and transform the world around them, producing culture and establishing their own social relationships. Thus, childhood ceases to be seen as merely a preparatory phase and comes to be understood as a social category with its own characteristics (Sarmiento, 2020).

In this context, childhood is understood as a social and historical construction that varies according to cultural, economic, and political factors. Recent studies reinforce that there is no single way

of experiencing childhood, but rather multiple experiences that reflect the social conditions in which children are embedded. This understanding broadens perspectives on childhood and contributes to the development of more inclusive and reality-sensitive educational practices (Qvortrup, 2021).

Pierre Bourdieu's concept of habitus also contributes to understanding the child's social formation by explaining how dispositions, values, and behaviors are incorporated from childhood onward. Habitus is formed through experiences lived in different socialization spaces, such as family and school, influencing how individuals perceive and act in the world. This process often occurs unconsciously but has a significant impact on an individual's social trajectory (Bourdieu, 2020).

In the educational field, habitus can contribute both to the reproduction and to the transformation of social inequalities. Recent studies indicate that schools, by valuing certain cultural standards, may reinforce existing inequalities. However, they also have the potential to promote change, provided they adopt inclusive and critical pedagogical practices capable of recognizing and valuing the diversity of students' experiences (Nogueira; Nogueira, 2021).

Finally, the articulation between the sociology of childhood, habitus, and sex education makes it possible to understand the child as a subject of rights and a protagonist in the educational process. By recognizing children's capacity for participation and knowledge construction, it becomes possible to develop more effective and humanized pedagogical practices. This approach contributes to the formation of individuals who are more aware, critical, and prepared to act actively and responsibly in society (Corsaro, 2022).

METHODOLOGY

The present study adopts the explanatory research method, as it seeks to understand and explain the causes, structural factors, and implications of sexual violence against children and adolescents. According to Lakatos and Marconi (2003), explanatory research aims to record, analyze, and interpret facts, identifying their causes in order to broaden generalizations, structure theoretical models, and

generate hypotheses through logical deductions. This approach requires deeper theoretical engagement, synthesis, and critical reflection on the object of study, which is appropriate given the complexity of the phenomenon of child sexual violence. The explanatory research method will be addressed as follows:

Explanatory research records facts, analyzes them, interprets them, and identifies their causes. This practice aims to broaden generalizations, define broader laws, structure and define theoretical models, relate hypotheses within a more unified view of the universe or productive field in general, and generate hypotheses or ideas through logical deduction (Lakatos and Marconi, 2003, p. 25).

Explanatory research requires greater investment in synthesis, theorization, and reflection based on the object of study.

This study uses the deductive method as its methodological approach, based on the principle that if all premises are true, the conclusion must consequently be true. According to Lakatos and Marconi (2003), all factual information or content of the conclusion must already be, at least implicitly, contained in the premises. Deductive arguments are either correct or incorrect: either the premises fully support the conclusions or they do not, if the logic is reversed.

With regard to methodological aspects, this article employed bibliographic research. Thus, it is characterized as follows:

[...] Elaborated from previously published material, consisting mainly of books, magazines, journal publications and scientific articles, newspapers, bulletins, monographs, dissertations, theses, cartographic material, and the internet, with the objective of placing the researcher in direct contact with all material already written on the subject of the research. In bibliographic research, it is important that the researcher verify the accuracy of the data obtained, observing possible inconsistencies or contradictions that the works may present (Prodanov; Freitas, 2013, p. 54).

Furthermore, considering subjects in their own terms, it is necessary to speak of cultural contextualization and a dialectical study, since:

[...] for dialectics, things are not analyzed as fixed objects, but in movement: no thing is always in a state of being, but always in the process of transforming and developing; the end of one process is always the beginning of another (Lakatos and Marconi, 1991, p. 75).

Thus, considering this as a careful investigation involving critical evaluation and synthesis of selected information, evidence related to the specific theme addressed in this work was synthesized. Therefore, the research for this study consisted of the use of books, academic articles, and secondary data related to the topic, with a theoretical and qualitative approach.

Gil (2002) emphasizes that bibliographic research is developed based on previously elaborated material, consisting mainly of books and scientific articles. As attested by Lakatos and Marconi (2003), bibliographic research is a general survey of the main works already carried out, endowed with importance for being capable of providing current and relevant data related to the topic.

Documentary research was also used, which, as Gil (2002) explains, makes use of materials that have not yet received analytical treatment or that can still be reworked according to the research objectives. It is also a descriptive research, whose primary objective is the description of the characteristics of a given population or phenomenon, or the establishment of relationships between variables.

Therefore, the present research is characterized as qualitative, theoretical, and explanatory in nature, grounded in critical analysis and the synthesis of selected evidence on sexual violence against children and adolescents. The study was based on the use of books, academic articles, and secondary data related to the topic, seeking to contribute to a deeper understanding of the phenomenon and to the strengthening of strategies for the prevention, protection, and confrontation of child sexual violence.

RESULTS AND DISCUSSION

The analysis of theoretical data shows that sex education in early childhood, when applied in a structured and appropriate manner, presents significant impacts on the child's holistic development. Recent studies indicate that children who have access to information about their own bodies and

boundaries from an early age demonstrate greater autonomy, emotional security, and communication skills in situations of discomfort. This result reinforces the idea that sex education is not limited to the informational field but acts directly in the formation of more conscious subjects prepared for healthy social interactions (UNESCO, 2018).

It is also observed that the use of ludic-pedagogical strategies significantly enhances the effectiveness of early childhood sex education. Play, as a learning tool, facilitates the assimilation of content considered sensitive, allowing children to understand concepts such as respect, privacy, and consent in a natural manner. Recent literature demonstrates that pedagogical environments that incorporate playfulness show greater student engagement and better learning outcomes, especially in early childhood education (Kishimoto, 2020).

Another relevant point identified in the analysis is the direct relationship between sex education and violence prevention, especially child sexual abuse. Recent data indicate that most cases of violence occur in family environments or in spaces close to the child, which reinforces the importance of educational mechanisms that strengthen children's capacity for identification and reaction. In this sense, sex education acts as an essential preventive strategy, contributing to the reduction of child vulnerability (WHO, 2016).

In addition, the analyzed studies show that children's emotional development is directly influenced by the educational practices adopted in the school environment. A playful approach to sexuality contributes to the expression of feelings, the strengthening of self-esteem, and the construction of bonds of trust with educators. These factors are fundamental for children to feel safe to share experiences and doubts, creating an environment conducive to learning and protection (Oliveira; Costa, 2022).

The discussion also reveals that teacher training is one of the main challenges to the effective implementation of sex education in childhood. Many educators still feel insecure or unprepared to address the topic, which can compromise the quality of pedagogical practices. Recent studies highlight the need

for continuing education focused on appropriate methodologies and the development of socio-emotional competencies, ensuring that educators act in a safe and conscious manner (Rodrigues; Almeida, 2023).

Another important aspect concerns the influence of the sociocultural context on how sex education is understood and applied. The concept of habitus helps explain how internalized values and beliefs influence both educational practices and families' receptivity to the topic. This demonstrates that the implementation of sex education requires not only pedagogical changes but also broader cultural transformations (Bourdieu, 2020).

The analysis further highlights that family participation is a determining factor for the success of early childhood sex education. When there is alignment between school and family, children receive more consistent and secure guidance, strengthening the learning process. On the other hand, the absence of this dialogue can generate conflicts and hinder the consolidation of knowledge acquired in the school environment, evidencing the need for integrated actions (UNICEF, 2021).

Finally, the results indicate that sex education mediated by playful practices and grounded in sociological approaches contributes to the formation of a culture of respect and protection in childhood. By recognizing the child as an active subject and promoting their participation in the educational process, the transformative potential of education is expanded. Thus, the articulation between theory and practice proves to be essential for the construction of more effective educational policies aligned with contemporary needs (Corsaro, 2022).

CONCLUSION

Throughout this study, sex education in early childhood proves to be an essential element for the child's holistic development, surpassing reductionist conceptions that limit it to the biological field. By considering emotional, social, and cultural dimensions, it is observed that this approach contributes significantly to the development of autonomy, body awareness, and the ability to establish relationships

based on mutual respect. Thus, sex education should be understood as a structuring part of the educational process, especially in the early years of life.

The analysis developed throughout the article showed that ludic-pedagogical strategies play a central role in making this process effective. Play, as the language of childhood, enables the construction of knowledge in a meaningful way, facilitating the approach to themes considered sensitive. In addition, playfulness contributes to children's emotional and social development, strengthening bonds and promoting a safe environment for the expression of feelings and doubts.

Another relevant point refers to the potential of sex education as an instrument for violence prevention, especially child sexual abuse. By knowing their own bodies, understanding boundaries, and developing communication skills, children become more capable of identifying risk situations and seeking help. In this sense, sex education is consolidated as a tool for protection, aligned with the principle of guaranteeing rights and promoting children's dignity.

The discussion also made it possible to understand the importance of the sociology of childhood and the concept of habitus in the analysis of educational practices. By recognizing the child as an active subject and producer of culture, understanding of their role in the learning process is broadened. Likewise, habitus highlights how social dispositions influence behaviors and perceptions from childhood onward, reinforcing the need for critical and inclusive pedagogical practices.

However, significant challenges remain for the effective implementation of sex education in childhood, especially regarding teacher training and sociocultural resistance. The lack of preparation of educators and the taboos present in society can compromise the development of appropriate pedagogical practices. Thus, it is essential to invest in continuing education and in public policies that encourage debate and the inclusion of the topic in the school environment.


Finally, it is concluded that early childhood sex education, when mediated by playful approaches and grounded in solid theoretical bases, constitutes an indispensable instrument for the formation of more conscious, autonomous individuals prepared for life in society. Its effectiveness depends on the

articulation between school, family, and public policies, representing an essential path toward the construction of a more just, safe, and respectful society.

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BEHIND THE SCENES OF CLEANING: MEMORIES AND SCHOOLING OF OUTSOURCED WOMEN IN EDUCATIONAL INSTITUTIONS <https://doi.org/10.63330/aurumpub.046-011>**Karin Tyeko Anami Reigoza¹****Abstract**

The study aimed to understand how outsourced female cleaning workers in higher education institutions construct meanings about education, their schooling trajectories, and the very right to learn, based on their memories and life experiences, highlighting processes of social and educational invisibility that intersect gender, race, and class. Methodologically, this is a qualitative study grounded in a bibliographic review of academic works on Youth and Adult Education (EJA), outsourcing, and women's labor, articulated with critical theoretical frameworks such as those of Paulo Freire, Karl Marx, Silvia Federici, and Pierre Bourdieu, in addition to the analysis of narratives and empirical studies that explore the experiences of outsourced workers in different Brazilian universities. The results showed that these women, mostly Black and with educational trajectories marked by interruptions, face precarious working conditions, exhausting routines, and double or triple workloads—factors that hinder access to and permanence in formal education, while also reinforcing their invisibility within the academic space, where they are recognized only as service providers rather than as educational subjects. It was also observed that, despite these adversities, there remain desires to resume their studies and strategies of resistance, indicating the central role of education as a possibility for social transformation and future projection. It is concluded that educational institutions reproduce contradictions by advocating for the democratization of access while symbolically excluding these workers, making it necessary to rethink institutional and public policies that ensure real conditions for access to education, the valorization of labor, and the recognition

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of these women as rights-bearing subjects, thereby contributing to overcoming the structural inequalities that sustain their invisibility.

Keywords: Youth and Adult Education, Outsourcing, Women's labor, Social invisibility.

INTRODUCTION

The university is an institution of higher education dedicated to the production, transmission, and development of knowledge through teaching, research, and extension, training professionals and contributing to the scientific, cultural, and social advancement of society. And as spaces dedicated to the production and dissemination of knowledge, they carry contradictions in their dynamics and internalized cultures.

Although their institutional discourses and documents defend the democratization of access, equality of opportunity, and education as a universal right, these educational institutions fail to recognize their own agents as legitimate educational subjects, maintaining the culture of structural invisibility behind the scenes.

Among these silenced groups to which this study refers, the majority are outsourced female cleaning workers, responsible for the essential maintenance of the infrastructure of educational institutions, whose presence remains socially erased and deprived of recognition.

On the symbolic and everyday level, the presence of these women is often marked by an invisibility historically associated with gender and race. And educational institutions reproduce this logic when they naturalize the fact that these workers are present only in corridors, bathrooms, and classrooms as service providers, and not as potential students or participants in the educational policies that the institution itself produces and defends.

This contradiction shows that, even when inserted in an environment that constitutes itself as the privileged place of education, these women are not recognized as recipients of the right that they help sustain and maintain daily. Freire (1996) already stated that the denial of the right to education is not

merely a formal exclusion, but a process of dehumanization that prevents subjects from perceiving themselves as capable of reading and transforming the world. And with regard to outsourced female cleaning workers, this denial becomes twofold: institutional, on the part of the educational institution, and social, on the part of a logic of class, race, and gender that defines which individuals are considered educable and which remain on the margins.

This research is centered on the life narratives of outsourced female cleaning workers in educational institutions, with the central objective of understanding how these workers construct meanings about education, EJA, and the very right to learn, revealing their trajectories marked by interruptions, returns, silencing, and also resistance. By recording these memories and experiences, the aim is not only to fill an academic gap, but also to contribute to the affirmation that these women are and have always been educational subjects, even when educational institutions insist on not recognizing them as such.

In order to become familiar with the topic and taking as reference other authors and research on the subject, a bibliographic review was conducted on the Scielo and CAPES platforms using the following keywords: “*Youth and Adult Education*” and “*Outsourced cleaning workers.*” Nine (09) texts were found that most closely approached the theme to be researched: “Outsourced female cleaning workers in educational institutions.” The theoretical framework is based on Freire (1967), Marx (1996), Federici (2017), Nogueira (2010), Bourdieu (2020), Mészáros (2002), and Ricardo Antunes (2009).

The table below contains the texts described by author, title, and year of publication.

Table 01

Author(s)	Year	Title	Publication
DRESCH, Gabriella Ane, ZANARDINE, Lincoln Renato Vieira e FAUX, Stéphanie	2014	<i>As trabalhadoras da limpeza de uma instituição pública de ensino superior: gênero, terceirização e precarização</i> [The female cleaning workers of a public higher education institution: gender, outsourcing, and precarization]	UFPR

SANTOS, Reinaldo Batista dos.	2016	<i>A (in)visibilidade dos trabalhadores de limpeza e conservação da Universidade Federal de Alagoas: imagens reveladas histórias reinventadas</i> [The (in)visibility of cleaning and maintenance workers at the Federal University of Alagoas: revealed images, reinvented stories]	(Dissertation) Federal University of Alagoas
BARBOSA, Beatriz Regina; MESQUITA, Tainá Vitória de Lima.	2016	<i>Um olhar sobre a EJA na universidade Estadual de Campinas: um projeto horizontal de educação de jovens e adultos protagonizado por estudantes de graduação e trabalhadoras e trabalhadoras em regime de terceirização</i> [A look at EJA at the State University of Campinas: a horizontal youth and adult education project led by undergraduate students and outsourced male and female workers]	Linha Mestra
SILVA, Edson Ferreira da	2018	<i>Universidade Federal: os caminhos da terceirização em uma instituição social</i> [Federal University: the paths of outsourcing in a social institution]	Federal University of Santa Catarina
MARTINS, Daiane de Lourdes	2019	<i>Invisibilidades no âmbito do trabalho de limpeza: um estudo em uma instituição Federal de ensino superior</i> [Invisibility in cleaning work: a study in a federal higher education institution]	Farol – Journal of Organizational Studies and Society
SOUZA, Jacione Borges de	2019	<i>“Que horas elas voltam?” sentidos da educação para funcionárias terceirizadas do Instituto Federal do RN</i> [“What time do they return?” meanings of education for outsourced female employees of the Federal Institute of RN]	Federal Institute of Education, Science and Technology of Rio Grande do Norte (IFRN)
DUTRA, Renata Queiroz e COELHO, Ilana Barros	2020	<i>Eles pensam que a gente é invisível”: gênero, trabalho terceirizado e educação jurídica popular</i> [“They think we are invisible”: gender, outsourced labor, and popular legal education]	Direito e Práxis
CAMPOLI, L.; PEROSA, G. S..	2022	<i>É casa, é luta, é o dia de amanhã: as auxiliares de limpeza terceirizadas da Unicamp</i> [It is home, it is struggle, it is tomorrow: the outsourced cleaning assistants of Unicamp]	Cadernos Pagu
CORGOSINHO, Anna Victoria Medeiros.	2023	<i>O trabalho e a invisibilidade dos terceirizados do serviço de limpeza em uma universidade.</i> [Work and the invisibility of outsourced cleaning service workers at a university.]	(Undergraduate thesis) Federal University of Ouro Preto

Source: prepared by the author. Article titles include a free translation in brackets [] following the original in italics.

METHODOLOGY

The research is characterized by a qualitative approach, exploratory and descriptive in nature, guided by the understanding of the meanings attributed to education by outsourced female cleaning workers in higher education institutions, considering their schooling trajectories, life experiences, and insertion into the world of work. It begins from a critical perspective that understands social reality as traversed by power relations structured by gender, race, and class, seeking to evidence how these markers produce processes of social and educational invisibility.

At first, a systematized bibliographic review was carried out in databases such as *Scielo* and CAPES, based on the descriptors “Youth and Adult Education,” “outsourcing,” and “women’s labor.” Studies that dialogue directly with the theme were selected, composing a theoretical corpus grounded in authors such as Freire, Marx, Federici, and Bourdieu. This stage aimed to map relevant academic productions and support the critical analysis of the investigated phenomenon, allowing the construction of a consistent theoretical framework.

In the following stage, a qualitative analysis of the selected empirical studies was conducted, based on the technique of thematic content analysis, seeking to identify recurring categories such as precarization of work, socioprofessional invisibility, interrupted schooling trajectories, and strategies of resistance. The interpretation of the data was guided by a critical and interdisciplinary perspective, articulating the empirical findings with the adopted theoretical frameworks. As this is bibliographic and documentary research, there was no need for submission to an ethics committee, while the principles of scientific rigor, reliability of sources, and analytical integrity were ensured.

RESULTS AND DISCUSSION

The first analysis concerns a master’s dissertation by Reinaldo Batista dos Santos entitled: “*A (in)visibilidade dos trabalhadores de limpeza e conservação da Universidade Federal de Alagoas: imagens reveladas e histórias reinventadas*” [The (in)visibility of cleaning and maintenance workers at

the Federal University of Alagoas: revealed images, reinvented stories]. Santos (2016) begins his text by stating: “Not rarely, in these educational institutions, emphasis is placed on research that ‘goes beyond the walls of the University,’ while forgetting, however, the ‘home itself’” (p. 16).

His research investigated the invisibility of outsourced cleaning and maintenance workers at the Federal University of Alagoas (UFAL), starting from the questions: “*who are the outsourced cleaning and maintenance workers who surround us daily in this university space? In what way does the everyday life of a university, immersed in literate practices, subjectively affect the life memories of these subalternized practitioners?*”

Santos (2016) argued that these outsourced workers, despite circulating daily around the campus in contact with intellectuals and cultural collections, remain opaque and silenced, occupying positions of subalternity defined by relations of power and knowledge.

Methodologically, the author carried out an initial mapping with 35 workers, men and women with life trajectories marked by school exclusion, marginalization, and denial of access to consumer goods. Santos (2016) used an approach through informal conversations and asked the workers to take photographs that served to initiate dialogues revealing memories and narratives.

To read a photograph is to cast an attentive gaze upon what constitutes it as visual language, with the specificities that are proper to it. And this produces a reflection that each image recorded in a photograph is a gesture, an action directed toward a target. Gestures are irreversible and unique. To repeat a gesture is already another gesture, never the same, because the gesture is living energy (Santaella, 2012).

The chapters of the dissertation explored the narratives of outsourced cleaning workers at the Federal University of Alagoas, using fictional names chosen from Tupi-Guarani culture. The analyses were based on individual stories such as those of Ubirajara (lord of labor, with memories of work in a surgical center), Abayomi (escape through networks of conversation and leisure), Araci (everyday

reinvention through photos), Caet (a past filled with rural memories), Mara (female strength), and Tainara (the expressive star).

The photographs, captioned by the workers themselves, revealed experiences of school exclusion, desires to return to studies, and appropriation of academic spaces within the educational institution. The author concluded that the outsourced workers, through their memorial narratives, recreated the past while also envisioning projections for the future.

Freire (1967) had already stated that it is from human beings' relations with reality, resulting from being with it and being in it, through acts of creation, recreation, and decision, that reality is gradually mastered; this means relating to the formation of the worker, who, through narratives and through work, recreates their social reality and projects a future, in the attempt to insert themselves into the world.

In this sense, understanding Youth and Adult Education as a space for critical formation and reconstruction of social reality implies observing concrete experiences that materialize these principles in educational practice. It is from this perspective that the second text is inserted, entitled "*Um olhar sobre a EJA na Universidade Estadual de Campinas: um projeto horizontal de educação de jovens e adultos protagonizado por estudantes de graduação e trabalhadores e trabalhadoras em regime de terceirização*" ["A look at EJA at the State University of Campinas: a horizontal youth and adult education project led by undergraduate students and outsourced male and female workers"], authored by Beatriz Regina Barbosa and Tayná Vitória de Lima Mesquita, which analyzes the EJA project called "Coletivo EJA," developed at the State University of Campinas (Unicamp), initiated in 2001 by students from the Institute of Economics and supported by university extension actions.

The "Coletivo EJA" was aimed at outsourced maintenance, cleaning, and food service workers, mostly Black women exposed to vulnerabilities such as salary delays, workplace accidents, and structural racism.

According to Federici (2017, p. 37), capitalism developed by exploiting different forms of labor, both wage labor and enslaved labor, generating a contradiction between the production of wealth and the

wear and tear of workers' labor power. In this process, women were especially harmed, because in addition to participating in productive labor, they assumed domestic and care work, generally unpaid and completely invisibilized.

Barbosa and Mesquita (2016) promoted literacy, mathematics, acupuncture, handicrafts, and computer skills in the "Coletivo EJA" project during lunchtime, the only available time for these workers. At this point, Antunes (2009, p. 172) is mentioned, as the discussion on reducing working hours emerges as an essential starting point, rooted in everyday experience, and this reduction enables the emergence of a life full of meaning beyond the professional sphere, freeing the worker for creative, relational, and personal activities that transcend mere productive survival.

(...) the struggle to reduce the working day or working time must be at the center of the actions of the world of labor today, on a global scale. To fight for the reduction of work with the aim, at the most immediate level, of minimizing the brutal structural unemployment that is a consequence of the destructive logic of capital and its system. To reduce the working day or working time so that the society of the precarized and the unemployed does not proliferate even further (Antunes, 2009, p. 175).

The method used for the analysis was based on Freirean pedagogy, with generative themes and horizontality. The authors, students of Pedagogy and Social Sciences, highlighted the racial composition of Unicamp: while 53% of the Brazilian population is Black, less than 15% of the students are Black, contrasting with the Black majority among outsourced workers, mainly in the areas of cleaning and food services.

The project problematized gender, race, and class through continuous training, combating academic hierarchies and promoting cultural gatherings to make workers visible. However, with the change of the maintenance and cleaning company in the bidding process, the students/workers were reassigned and/or dismissed, resulting in the suspension of the extension project. The initiative was (and continues to be) revolutionary by democratizing educational access at a university such as Unicamp,

questioning outsourcing, the absence of quotas, and noncompliance with laws such as Law 10.639/03 (Afro-Brazilian history).

The discontinuity of the project shows how outsourcing policies directly impact not only working conditions, but also workers' access to and permanence in formative spaces. It is in this context that it becomes pertinent to broaden the debate on outsourcing and its structural effects, which leads to the analysis of the text authored by Edson Ferreira da Silva, entitled "*Universidade Federal: os caminhos da terceirização em uma instituição social*" ["Federal University: the paths of outsourcing in a social institution"], which investigates the process of expansion of outsourcing in public service.

Silva's study (2018) began from the understanding that outsourcing is directly linked to transformations in the world of work under the logic of neoliberal capitalism, marked by the flexibilization of labor relations, cost reduction, and the decrease of the State's responsibility as employer.

According to Marx (1996, p. 167), as creator of use-values, as useful labor, labor is thus a condition of human existence, independent of all social forms, an eternal natural necessity for mediating the metabolism between human beings and nature and, therefore, human life. For Silva (2018), this model profoundly alters institutional relations, producing differentiations between permanent and outsourced workers within the university. The research showed that outsourcing impacts not only the material conditions of work, but also the symbolic and social dimensions of outsourced workers.

In his analysis, the author also highlighted aspects such as the precarization of employment ties, the turnover of contracted companies (through bidding processes), insecurity regarding job retention, and the fragility of access to rights. In this scenario, outsourced workers perform essential functions, such as cleaning, security, and administrative support, and yet they remain on the margins of institutional policies for professional valorization, which reinforces processes of invisibility and also exclusion within the institutional educational space.

Federici (2022, p. 172) uses in her studies the term “commons,” which means the collective forms of organizing and sharing resources, social relations, and ways of life outside the logic of the market and private property. According to the author, in order to change the university it is necessary to:

(...) build “knowledge commons”; it is not enough to concern ourselves only with the content of curricula and the cost of education, although these are unquestionably crucial. We need to question the material conditions of the production of a university, its history, and its relationship with the surrounding communities (Federici, 2022, p. 172).

In his conclusion, Silva (2018) argued that outsourcing contributed (and continues to contribute) to the fragmentation of the working class within the university, deepening hierarchies and inequalities. The separation between permanent employees and outsourced workers compromises the feeling of belonging and weakens the construction of collective bonds.

According to Antunes (2009, p. 109), the class-that-lives-from-labor encompasses unproductive workers (permanent and outsourced employees). Unproductive workers are those who meet social needs or assist in the functioning of institutions and companies; however, they do not directly participate in the process of generating surplus value (which is the profit produced through the exploitation of labor in the capitalist system).

The bonds between permanent employees and outsourced workers tend to be fragile because these groups occupy different positions within the institutional structure and labor relations. Permanent employees have stability, greater institutional recognition, and more direct participation in administrative decisions, while outsourced workers are hired by intermediary companies, through bidding processes, with less job security, greater turnover, and less integration with the team.

For Silva (2018), the “paths” of outsourcing in educational institutions are not limited to an administrative choice, but represent a political and economic project that redefines the role of the State and working conditions in the public sector, requiring critical analysis and institutional actions aimed at guaranteeing rights and the dignity of labor.

From this perspective, by understanding outsourcing as part of a political and economic project that reorganizes labor relations in the public sector, the analysis moves on to the article *“Invisibilidade no trabalho de limpeza: um estudo em uma instituição federal de ensino superior”* [“Invisibility in cleaning work: a study in a federal higher education institution”], by Daiane de Lourdes Martins, which investigated how this hiring model contributes to the construction of socioprofessional invisibility, especially among outsourced female cleaning workers, evidencing the inequalities and precarizations resulting from this process.

Grounded in a socio-anthropological perspective, the study discussed how invisibility is produced in social and organizational relations, associated with the social division of labor, the stigma of occupations considered to have “low prestige,” and the precarization resulting from outsourcing. Although cleaning is essential to the functioning of a university’s structure, the work is valued as a result, but the outsourced female cleaning workers remain socially disregarded.

The research used a qualitative method with semi-structured interviews conducted with eight workers from the cleaning sector. Content analysis made it possible to identify three central units of meaning: *the gaze that does not see, the uniform that makes invisible, and the broom and bucket instead of the book*. These categories revealed everyday practices of indifference, hierarchical treatment, and stigmatization of cleaners, who are often perceived only as part of the institutional landscape. The use of the uniform and the association of the work with a lack of schooling reinforce symbolic exclusion and the feeling of non-belonging to the university space.

The results indicated that socioprofessional invisibility goes beyond the dimension of the work itself and extends to broader social relations, legitimizing hierarchies and inequalities within the educational institution. The cleaning workers recognized the social importance of their role, but reported humiliation and resignation.

By evidencing the multiple forms of invisibilization faced by women workers in the educational environment, Martins (2019) reinforced the importance of deepening discussions on how these women perceive and attribute meaning to educational processes in their personal and professional trajectories.

It is from this perspective that, following this bibliographic research, the article “*Que horas elas voltam?: sentidos da educação para funcionárias terceirizadas do Instituto Federal do RN*” [“What time do they return?: meanings of education for outsourced female employees of the Federal Institute of RN”], authored by Jacione Borges de Souza, is presented, in which the author analyzed the meanings attributed to education by outsourced women workers at the Federal Institute of Rio Grande do Norte (IFRN), Canguaretama campus, articulating education, work, and gender.

Souza (2019) begins from the observation that these women, most of whom have interrupted schooling trajectories, associated education both with a desire for social mobility and life change and with an experience marked by abandonment and frustration. According to the author, the need for survival, early entry into work, and family responsibilities appear as determining factors for the interruption of studies and for distancing from school.

Mészáros (2002, p. 304–305) highlights the extreme vulnerability of women in patriarchal capitalism, not only because of their concentration in precarious and poorly paid jobs—representing 70% of global poverty—but mainly because of the central role they play in the traditional family, facing growing demands that are irreconcilable with social pressures. These demands overburden women, making it impossible to reconcile them without generating “social dysfunctions,” such as family instability, which only worsens inequalities and perpetuates gender exploitation intersected with class.

Nogueira (2010, p. 61), in turn, states that responsibility for domestic tasks falls mostly on women who also perform wage labor in capitalist production, constituting a double (or even triple) working day, with profound impacts such as physical and mental exhaustion. This overload reveals a deep-rooted gender oppression, in which the home is naturalized as the female domain, while the market exploits their

paid labor power without alleviating the unpaid burden of care. Thus, a dual exploitation is perpetuated: patriarchal and capitalist, widening inequalities and limiting these women's autonomy.

For sociologist Bourdieu (2020, p. 74), symbolic violence causes even attitudes that are apparently small and even well-intentioned, without conscious intention, to end up reinforcing the inferiorization of women, contributing to their exclusion from positions of power and to the maintenance of gender inequalities,

(...) well-intentioned people (symbolic violence, as we know, does not operate in the order of conscious intentions) perform discriminatory acts, excluding women, without even raising the question, from positions of authority, reducing their claims to whims deserving of a soothing word or a pat on the cheek, or else, with an apparently opposite intention, calling them and reducing them, in some way, to their femininity, by diverting attention to their hairstyle, or to this or that bodily trait, or by using, to address them, familiar terms (the first name) or intimate terms ("my girl," "dear," etc.) even in a "formal" situation (a female doctor before her patients), or so many other infinitesimal "choices" of the unconscious which, accumulating, contribute to constructing the diminished situation of women and whose cumulative effects are registered in the statistics of the limited representation of women in positions of power, especially economic and political power (Bourdieu, 2020, p. 74).

Souza (2019) used in her research a qualitative approach grounded in phenomenology, with focus group interviews and the film "*The Second Mother*"² as a methodological resource to understand the meanings lived by the participants. The author identified units of meaning such as tiredness, choice, conformism, strength, and confidence, which traversed the trajectories of the women researched. The physical and emotional fatigue resulting from the double working day—formal employment and domestic work—emerges as the main element that hinders return to and permanence in education, especially in the Youth and Adult Education (EJA) modality.

In her final considerations, Souza (2019) highlighted that distancing from school does not result from a lack of individual interest, but from a set of social, historical, and gendered conditions that limit

² A Brazilian film about complex and enduring social divisions that explores barriers of class, race, and gender through the dynamics between the domestic worker Val, her daughter Jéssica, and the upper-middle-class family that employs them, highlighting how structural hierarchies, prejudices, and inequalities shape interpersonal relationships and the course of people's lives, while challenging the passive acceptance of a system that perpetuates servitude and exploitation.

these women's access to and permanence in educational spaces. The author showed that education is perceived as important, but placed in the background in the face of the demands of work and family care, reinforcing roles traditionally assigned to women. Antunes warns that,

(...) capital has also known how to intensively appropriate the polyvalence and multiactivity of women's labor, of the experience that women workers bring from their activities performed in the sphere of reproductive labor, of domestic work. While men—because of the prevailing historical-social conditions, which are, as we have seen, a sexualized social construction—show greater difficulty in adapting to the new polyvalent dimensions (in truth, conforming to deeper levels of exploitation), capital has used this social attribute inherited by women (Antunes, 2009, p. 109, 110).

Souza's study (2019) contributes by evidencing, through statistical data, dropout in EJA and by highlighting the need for integrated public policies that consider the specificities of outsourced women workers.

In this same field of discussion on the living and working conditions of these women, the article "*O trabalho e a invisibilidade dos terceirizados do serviço de limpeza em uma Universidade*" ["Work and the invisibility of outsourced cleaning service workers at a University"], by Anna Victoria Medeiros Corgosinho, broadens the debate by analyzing the outsourcing of cleaning services at the School of Mines of the Federal University of Ouro Preto, emphasizing how the precarization of work is directly related to the social invisibility of these workers.

The study was grounded in critical frameworks of the world of work, understanding work as a central element of human identity, which, under the neoliberal capitalist logic, comes to be appropriated and emptied of its dignifying character. Outsourcing, in this context, manifests itself as a strategy for cost reduction and flexibilization of labor relations, expanding more fragile ties and consequently generating greater legal insecurity and social devaluation.

Based on a qualitative case study, carried out with outsourced female cleaning workers, the work used questionnaires administered *in loco* to trace the socioeconomic profile of the workers and understand their working conditions, interpersonal relations, and perceptions of the activity performed.

The results demonstrated a group composed mostly of Black women, with low levels of schooling and long histories of outsourced employment ties, marked by company turnover, the loss of labor rights, and the absence of qualification. Working conditions included extensive hours, physical effort, lack of training, and frequent exposure to situations of embarrassment and discrimination in the educational environment.

This corroborates Nogueira (2010, p. 61), who states that the capitalist system constantly seeks to reduce the costs related to the reproduction of labor power, which results in the reduction of wages of the working class as a whole. This process, however, affects women even more intensely, since their labor power has historically been devalued because of power relations between the sexes, especially within the patriarchal family.

In this way, women come to occupy the place of a kind of “reserve army,” being incorporated into the labor market under precarious conditions and with low pay, which contributes to the maintenance of capitalist exploitation. Thus, gender inequality becomes a functional element of the system, allowing the continuation of the precarization of the proletariat in general and, in particular, of working women.

Corgosinho (2023) concluded that outsourcing is directly associated with the precarization of work and the social invisibility of these workers, despite the centrality of their activities to the functioning of the university. The distinction between permanent and outsourced workers reinforces symbolic hierarchies, limiting the feeling of belonging to the academic community and thus compromising the construction of a valued professional identity.

The study showed that the precarization of work presented structural markers of gender, race, and class—affecting more intensely Black women inserted in historically devalued occupations—and the importance of reflecting on the limits of outsourcing and its social and human impacts.

In this same analytical direction, the article *“É casa, é luta, é o dia de amanhã: as auxiliares de limpeza terceirizadas da Unicamp”* [“It is home, it is struggle, it is tomorrow: the outsourced cleaning assistants of Unicamp”], by Lara Campoli and Graziela Serroni Perosa, deepened this discussion by

examining the social trajectories of outsourced cleaning assistants at Unicamp, placing their experiences in the broader context of the flexibilization and precarization of work, also through the lenses of gender and race.

The authors pointed out that these workers—mostly Black women, with low levels of schooling, migrants, and often heads of household—perceive outsourced employment, at the same time, as an achievement in the face of unemployment, informality, and unpaid domestic work. But in fact, outsourced work is permeated by precarization, low wages, instability, and disrespect for labor rights.

With a qualitative approach, the research reconstructed the trajectories of 18 outsourced cleaning workers through interviews, observing the everyday work routine. Campoli and Perosa (2022) used handcraft workshops, articulating history and Bourdieusian sociology to show how class, gender, and race still shape opportunities. The authors highlighted common patterns: early departure from school, entry during childhood into rural and domestic activities, socialization for care, and entry into outsourced cleaning as “the best possible option.”

In terms of working conditions, the article described long working hours, low and delayed wages, absence or failures in benefits, lack of materials and PPE, moral harassment, intense surveillance, prohibition from circulating and using university structures, weakening collective and affective bonds. Even so, these women produced small forms of everyday resistance—“ways of managing,” their own work rhythms, tactical use of spaces and breaks—that partially mitigated invisibility in the educational institution.

The authors concluded that outsourcing in the cleaning sector reinforces the sexual and racial division of labor and deepens inequalities, pushing these workers into devalued occupations with almost no prospect of upward mobility. Even so, many of these women project for their children a “better” future, anchored in and guided by studies and access to higher education, which helps explain the acceptance of precarized working conditions.

According to Bourdieu (2020, p. 34), the masculine order is maintained by being naturalized in everyday social and bodily practices, transforming biological differences into justification and imposing on women socially inferior positions, behaviors, and tasks,

(...) inscribed in things, the masculine order is also inscribed in bodies through tacit injunctions, implicit in the routines of the division of labor or of collective or private rituals (it is enough to recall, for example, the conduct of marginalization imposed on women through their exclusion from masculine places). The regularities of the physical order and of the social order impose and inculcate measures that exclude women from the noblest tasks (driving the plow, for example), assigning them inferior places (the lower part of the road or embankment), teaching them the correct posture of the body (for example, bent over, with arms folded over the chest, before respectable men), attributing to them painful, low, and petty tasks (they are the ones who carry the manure, and, in the olive harvest, they are the ones who gather the olives from the ground, with the children, while the men handle the pole to make them fall from the trees), finally, in general taking advantage, in accordance with fundamental presuppositions, of biological differences that thus seem to be at the basis of social differences.

This corroborates Campoli and Perosa (2022), who argue that educational institutions should assume political responsibility for this reality of outsourced workers. And by reinforcing this political responsibility in guaranteeing rights and reducing the precarization of outsourced work, the debate on the role of these institutions in transforming this social reality is broadened.

It is within this same perspective that the article *“Eles pensam que a gente é invisível”: gênero, trabalho terceirizado e educação jurídica popular* [“They think we are invisible”: gender, outsourced labor, and popular legal education], by Renata Queiroz Dutra and Ilana Barros Coelho, is situated. It analyzed the precarious conditions experienced by outsourced female cleaning workers at the Federal University of Bahia (UFBA), based on the experience of the extension project “Popular Legal Promoters and Coletivo Madás,” evidencing strategies of resistance and strengthening among these workers.

Based on records such as field diaries and reports produced during the course, Queiroz and Coelho (2020) investigated how outsourcing is (and still remains) associated with processes of social exclusion, especially when traversed by markers of gender and race. The project aimed to promote training in human rights and citizenship, creating a space for dialogue and collective strengthening for these workers,

inspired by the principles of popular education and by a critical perspective of law as an instrument of social transformation.

The authors highlighted that the profile of outsourced workers is composed mostly of Black women, mothers, and women with few opportunities for professional advancement. They face exhausting working hours—double or triple workloads—accumulating professional and domestic functions, reinforcing gender inequality in the world of work. The article also argued how the sexual division of labor and the historical legacies of racism contributed to the social devaluation of these professionals, who are frequently directed toward activities considered subaltern and poorly paid.

According to sociologist Pierre Bourdieu (2020, p. 49–50), symbolic domination occurs invisibly and naturalized within society, not through direct imposition or through people’s rational consciousness, but through the ways in which they learn to perceive, judge, and act in the world. These ways are part of what is called habitus, that is, the set of habits, values, and ways of thinking acquired throughout life in human social relations. In this way, people end up reproducing social, cultural, or gender inequalities often without realizing it; that is, these ideas are already incorporated into their everyday practices as something natural.

In the research, Queiroz and Coelho (2020) reported that the course experience enabled participants to share experiences related to salary delays, threats of dismissal, labor irregularities, and situations of social invisibility in the educational environment. The feeling of devaluation manifested itself in the lack of recognition of their proper names, disrespect for the work performed, and episodes of harassment and humiliation, demonstrating how outsourcing affects not only material conditions, but also the dignity of these women.

In their conclusion, the authors pointed out that popular legal education contributed to strengthening the critical consciousness and collective organization of the workers, enabling the recognition of rights and the importance of developing resistance. This initiative expanded the visibility

of these workers in processes of social emancipation, while also evidencing the need to confront the structures that sustain the precarization of work.

The analysis of the final article in this bibliographic research: *“As trabalhadoras da limpeza de uma instituição pública de ensino superior: gênero, terceirização e precarização”* [“The female cleaning workers of a public higher education institution: gender, outsourcing, and precarization”] by Gabriella Ane Dresch, Lincoln Renato Vieira Zanardine, and Stéphanie Faux, presented the results of a social research study carried out with outsourced female cleaning workers working at the Rector’s Office of the Federal University of Paraná (UFPR).

The study was developed using a qualitative method based on the application of questionnaires to 21 workers, with the objective of analyzing working conditions, as well as the relationship between gender, outsourcing, and the precarization of work. It was perceived through the profile of the employees that the majority are adult women, with low levels of schooling, married or with children, and residents of the metropolitan region. Many entered the cleaning field due to a lack of opportunities in other professions and because they already had experience with domestic activities, which reinforces the social association between women’s work and tasks of care and home maintenance.

According to Antunes (2009, p. 109), inequalities in the world of work are not determined only by social class, but also by gender, since men and women are educated and prepared in different ways from childhood, through the family and school, to occupy certain professional and social roles.

This social construction creates a sexual division of labor, in which certain activities are associated with men and others with women. Capitalism benefits from this division, using it to distribute functions and value labor unequally, generally attributing greater prestige and remuneration to masculine activities and devaluing the work performed by women.

The research evidenced the contrast between the constant presence of these workers in the educational space and their condition of invisibility, marked by the absence of participation in academic activities and by the lack of effective access to the opportunities offered by the institution.

The authors mentioned that the outsourcing of labor only intensifies the precarization of working conditions, resulting in low wages, recurring deductions, high turnover, and shifts that begin very early or extend until late, which often implies long commutes. This means weakening labor rights and professional stability, contributing to the deepening of the social vulnerability of these workers.

In the conclusion, the authors also highlighted that, despite the difficulties, many outsourced workers stated that they saw dignity in the profession and demonstrated appreciation for the social relations built in the work environment. However, a significant portion of them expressed the desire to change fields and return to school, revealing dissatisfaction with the conditions offered. Gender inequalities, combined with outsourcing, keep these women in socially devalued positions, indicating the need to broaden the debate on women's labor and the precarization of work.

CONCLUSION

The analyses of these studies demonstrated the structural invisibility that permeates outsourced female cleaning workers in educational institutions, revealing contradictions between institutional discourses of educational democratization and exclusionary practices of neoliberal capitalism, which fragment the working class through precarizations and hierarchies of class, race, and gender.

Santos (2016) illustrated this by mapping memorial narratives of UFAL workers, such as Ubirajara and Mara, who, despite being essential to the campus, recreated the past and projected futures through photographs and dialogues, echoing Freire (1967) in the idea that acts of creation and recreation with reality combat subjective silencing.

Likewise, Unicamp's "Coletivo EJA" by Barbosa and Mesquita (2016) emerges as horizontal resistance, promoting Freirean literacy for Black outsourced women during lunchtime, but perishes with bidding-process company changes, highlighting, with Antunes (2009), the need to reduce working hours in order to humanize lived time and challenge the logic of accumulation that exhausts women's labor power, as denounced by Federici (2017).

Silva (2018) and Corgosinho (2023) deepened the critique of neoliberal outsourcing, which generates turnover, loss of rights, and symbolic exclusion, distinguishing permanent employees from outsourced workers and weakening belonging, while Martins (2019) reveals, through interviews, categories such as “*the gaze that does not see, the uniform that makes invisible, and the broom and bucket instead of the book,*” naturalizing indifference in federal educational institutions.

Souza’s study (2019), inspired by “*The Second Mother*”, unveils the tiredness and conformism in these women’s double working day at IFRN, where gender and survival frustrate the desire for EJA, perpetuating dropout and patriarchal-capitalist oppression, according to Nogueira (2010).

In view of this theme, one may ask: why not change the legislation? This corroborates Bourdieu (2020, p. 139):

Only a political action that really takes into account all the effects of domination that are exercised through the objective complicity between incorporated structures (both among women and among men) and the structures of the great institutions in which not only the masculine order, but also the entire social order, is realized and produced (beginning with the State, structured around the opposition between its “right hand,” masculine, and its “left hand,” feminine, and the School, responsible for the effective reproduction of all the fundamental principles of vision and division, and also organized around homologous oppositions) will be able, in the long term, no doubt, and by working with the contradictions inherent in the different mechanisms or institutions referred to, to contribute to the progressive disappearance of masculine domination.

An amendment to Brazilian labor legislation and to the bidding processes for hiring outsourced workers should establish a maximum working week of 20 or 30 hours in cleaning service contracts. This change, perhaps conditioned on proof of enrollment in Youth and Adult Education (EJA) programs or extension projects, would free up the time needed for study, allowing these outsourced male and female workers to constitute themselves as full educational subjects, fostering educational institutions that are effectively inclusive and that value the dignity of human labor.

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DISCOURSES ON INDIGENOUS SCHOOL EDUCATION¹

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Abstract

This work is the result of extensive contact with Terena Indigenous School Education (EEI) in a large part of the state of Mato Grosso do Sul. Contact with Terena indigenous teachers, during the author's participation in the development and implementation, as well as teaching in the Postgraduate Program in Terena Language and Culture, was the main motivation for conducting the research. Subsequently, years of living in the village, in direct contact – through profession and/or friendship with Terena teachers – provided extensive observation of the actual functioning of the schools, in villages. This research is part of the work initiated since then. It deals with the knowledge of Terena teachers about the rights to EEI acquired by indigenous people and guaranteed in official documents; in this phase, about Resolution 05 of June 2012.

Keywords: Meanings, Teaching, School Education, Rights and Teachers.

INTRODUCTION

“The people are meeting to change this school. We are meeting to see what the ideal school for us would be like”. (Report of the II Meeting of Indigenous Teachers from AM and RR, Manaus, 1989 – emphasis added).

Although 30 years have passed since the movement of Indigenous teachers from Amazonas, Roraima, and Acre, it is evident that “seeing what the ideal school for us would be like” (Report, 1989) remains a gap present in Terena Indigenous schools. In light of this and many other issues related to it, the

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need for this research is justified. Between what exists and what is idealized, there is an aggravating factor: the relationship between the Brazilian State and Indigenous peoples.

In this sense, we aim to observe what has been documented in Brazilian society, and what has been appropriated by the Terena school community. Seeking results that may enable some understanding of these two elements, we will use the analytical instruments offered by Orlandian Discourse Analysis—DA; after all, we shall not commit here the naïveté of interpreting the material collected, since we would run the risk of being affected by our “colonizing” origin, or by what white school education proposes. Appropriating a scientific method of analysis exempts us from possible effects of such influence and will allow us the opportunity to present reliable results for the field of Indigenous school education.

In this sense, we will take the discourses of Indigenous Terena teacher-subjects from the two Schools of the aforementioned Village. We will seek to identify, in these uttered discourses, effects of meaning that clarify the relationship between school practice and the official regulation of Indigenous school education, based on what Resolution 5 of June 22, 2012 proposes, which presents itself as the most modern official record since the 1988 Constitution.

The first two topics discuss the identity of Indigenous peoples, in a more generalized way, within the Brazilian historical context, and the relational modes that generally regulate issues between Indigenous and non-Indigenous people, that is, the way in which the non-Indigenous person defines the “Indian” and his or her issues. Next, we outline a very restricted overview of the so-called Indigenous school. After that, we seek to present the Terena Indigenous person through points that mark his or her historical and behavioral configuration. We open a space devoted to the functioning of the theoretical field of Discourse Analysis (DA), for a better understanding of our analytical device. Finally, we turn to analyses of utterances selected from the discourses of Indigenous Teacher-subjects.

Our concern, as researchers, lies in submitting the object of analysis to the analytical device, so that the result may be Terena. And not what some people think Terena is. In this sense, the discourses collected will be transcribed without revision, remaining in their original form. These discourses, as

authorized by DA, will be subdivided into groups according to what is intended to be researched: specific, differentiated, intercultural, and bilingual/multilingual Indigenous school education. As for the appendices, they consist of the full discourses and the questionnaire used in data collection.

OF WHAT/WHOM I SPEAK TO YOU IN THIS WAY

Indigenous issues such as identity, space, struggles, education, advances, achievements, etc., have been the subjects of countless studies; however, it is very common to observe how “white” they are. Observing various relations in academia, it is not difficult to perceive how much colonizing attitudes have been repeated. The Portuguese adventurers of 1500, in the records they left, displayed how strange the natives, their habits, their clothing—or the absence of it—and their social practices appeared to them. From this estrangement, they initiated the so-called civilizing process, so often interpreted, criticized, and condemned.

The question posed in this research is: to what extent do we, researchers of modernity, not incur the same “error”? Or, to put it more politely, to what extent do we not use the same practices of 1500? When thinking about Indigenous school education, for example,

The Portuguese considered that the institutions and philosophical foundations of the European educational system were “universal.” Upon finding no traces of these institutions in Indigenous societies, they concluded that such societies lacked consistent educational practices and, therefore, pedagogical conceptions to guide them, bequeathing this ethnocentric prejudice to Brazilian society, which has internalized it up to the present day. For them, it was not a matter of the opposition between two different educational systems, but of the clash between, on the one hand, the universal system—obviously theirs—and, on the other, the absence of a system in Indigenous societies. Thus, the nonexistence of the school, the classroom, the teacher, the curriculum, schedules, strict discipline, punishments, and corrective penalties allowed them to conclude that Indigenous peoples had no education and needed to be civilized according to the European model of schooled education. (Freire. 2004, p. 16).

Words such as “considered,” “concluded” are parts of discourses that point to a dominating subject and, as such, one who reserves to himself the right to evaluate, judge, and decide about the lives

of “all” based on his own convictions, placing his own society and what exists in it as a model for any other.

There, the Portuguese, as a nation superior to the “savages” they encountered, positioned themselves before them in a game of projection schematized by Pêcheux (1990, p. 82): “what functions in discursive processes is a series of imaginary formations that designate the place that A and B attribute each to himself and to the other, the image they make of their own place and of the place of the other.”

Thus, we have the “prejudice” inherited from our European ancestors—referred to by Freire (2004, p. 16)—which, through the lens of DA, may be taken as “already-saids” (Pêcheux, 1990, p. 85), widely used in new practices and new research. They are “interdiscourses” (Orlandi, 2017, p. 20), a scientized way of saying that the treatment still given to Indigenous people today by many researchers—and any one of us is relatively subject to this—is an inheritance from the Portuguese. Because “saying is not private property. Words are not ours alone.” (Orlandi, 2012, p. 32); therefore, the effects of meaning produced by academic research will be inscribed in given “discursive formations” (Orlandi, 2015, p. 41), which affect the construction of discourse. Moreover,

From the point of view of discourse, prejudice is a discursivity that circulates without support in real conditions, and is strongly maintained by imaginary relations traversed by a power-to-say that erases (silences) meanings and reasons of the very way of signifying. (Orlandi 2012, p. 222).

In this sense, looking at the “Indian” today—his or her identity, perspectives, aspirations, and way of life—from his or her own standpoint, from his or her own discourse—and not from the discourses said about him or her—seems to us a more authentic way of constructing this work about him or her. Thus, before passing judgments on Indigenous school education, we chose to select some topics: “Who is the Terena Indigenous subject of a specific Village in MS?”; in order to better glimpse “Who is the Terena Indigenous teacher-subject of a specific Village in MS?”; historically positioned, so that we may then seek to understand the Indigenous school education of the Village, seeking to comprehend the meanings constructed in relation to this theme through the “conditions of production” of this model of education.

When one casts a gaze upon the issues of Terena Indigenous School Education, when one reads the actions and laws directed toward this theme, certain meanings result from possible interpretations; however, what is intended here is not restricted to interpretation, but advances into the field of analysis of issues related to the reality in question, the mode that points toward understanding:

To understand is to know how a symbolic object (utterance, text, painting, music, etc.) produces meanings. [...] When one interprets, one is already bound to a meaning. Understanding seeks the explicitation of the processes of signification present in the text and allows one to hear other meanings that are there, understanding how they are constituted. (Orlandi, 2015, p. 24).

Obviously, a text such as this does not intend to “exhaust” these questions, but rather to “inaugurate,” within this space of circulation to which we have had access, a series of reflections and observations on this theme, which will gradually be resumed at the appropriate time.

THE HISTORY OF THE INDIGENOUS SUBJECT IN BRAZIL – OBSTACLES THAT “DISAUTHORIZE” POSSIBLE AUTHORS, OR FORM PASSIVE AUTHORS

It is necessary to mention that one “discourse” in particular motivates the construction of this text:

In *Terra à vista* (1990), I speak of our contradiction: Submitted to the designs (ought-to-be) of Western civilization, of the civilizing process—read colonizing—we are cultural beings when we resist in our differences, and for this we lose the possibility of having a history, since it is through the portion that falls to us of Western civilization that we are counted in a history (that of colonization, that is, that of the colonizer). In this history, we do not speak, we are spoken. We are not historical beings, but cultural ones. By erasing our historicity, they blur/bar, in the same gesture, the political and the social. (Orlandi, 2009, emphasis added).

Shifting the author’s words to the theme of Indigenous School Education (ISE), several aspects may be addressed. Commonly, when one thinks of school, one thinks of curriculum structure. When speaking of knowledge—at this moment, that which is customarily taught in school—there is a direction toward scientific knowledge. And science crosses borders, whatever they may be. Taking as a basis, for example, the knowledge validated by the ENEM (National High School Exam): **Natural Sciences and**

their Technologies (chemistry, physics, biology, energy, and environmental preservation); **Human Sciences and their Technologies** (history, sociology, geography, and philosophy); **Languages and Codes** (Portuguese, literature, arts, physical education, and languages); **Mathematics**, (numerical comparisons, measurement systems, algebra, interpretation of graphs and tables, etc.), require methods and theories developed and used by different peoples and nations, in order to serve their proposed objectives.

From this perspective, as a society in search of knowledge, we aspire to the advancement of Western civilization at all levels of its development. And, in this sense, we open ourselves to our share of European inheritance: that of the colonizer—of 1500 or of the present day. However, by assuming this “genealogy,” we lose the other one: that of a people constituted on this soil called Brazil, a homeland that is, politically and economically, not a gentle mother to all its children, due to the fact that, many times, through this bias, it aborts the existence of the Black person and even more so that of the “Indian,” as well as his or her essence, his or her knowledges.

[...] “The Portuguese discovered Brazil.” From this it is inferred that our ancestors are the Portuguese and Brazil was merely an expanse of land. There “were” unruly savages who formed part of the land and who, once “discovered,” became the object of catechesis. From the beginning, they are the target of erasure; they constitute nothing in themselves. This is their “transparent” historical status: they do not appear. There is a historical rupture through which one passes from the Indian to the Brazilian by means of a “leap.” (Orlandi, 2008, p. 66)

For Orlandi (2008, p. 66), the Indigenous person has been the target of a process of silencing, since “[...] the silencing produced by the State does not fall only upon what the Indian, as subject, but upon the very existence of the Indian subject. And when I say State, I mean the Brazilian State of the white person. This State silences the existence of the Indian as its part and as a component of Brazilian culture.” Starting from this/these reality/realities, besides us, Brazilians called non-Indigenous, living the erasure of a past—still present—without construction, without history, we have among us, in this most brilliant land, whose smiling, beautiful fields have more flowers—although some are vehemently prevented from blooming—the Indigenous peoples, “unruly savages” (Orlandi, 2008), still today forming

part of this space. And, at this point, a question becomes necessary: “how has the Terena subject reacted to all of this?”

I am very tempted to mention here the outburst of an Indigenous teacher who, in one of our discussions, declares: “It is necessary to take the trash out from under the rug!” Yes, it is necessary. But what trash is this? And what are the consequences of exposing it? And: what effects of meaning are being produced or silenced there?

Dealing with Indigenous issues is not an easy task. The ideology of silencing materializes itself in the most diverse modalities. And, to some extent, it sometimes even presents itself as a survival strategy/strategies. In a society that writes the history of the other, within some universities, there are those who say that Indigenous school education “is already a resolved issue.” In this sense, it is necessary to reflect in the light of science, of theoretical grounding.

In her text *Colonização, globalização, tradução e autoria científica* [Colonization, globalization, translation and scientific authorship] (2009, p. 181–187), Eni Orlandi raises some questions about valued knowledge and scientific production, based on scientific production:

It happens that, when this practice is traversed by the effects of colonization, it acquires specific contours and produces significant results. As we know, Westernization is declined in history according to its modalities: colonization, globalization, and other forms sustained in relations of force, of power, *hierarchizing* positions even when one speaks of unity. (Orlandi, 2009, emphasis added).

In the context in question, the author states that valued scientific production is international, which she treats as that of the “colonizer.” Of those who, even today, exercise dominion over the Brazilian nation in its various spheres, including imposing their scientific knowledge at the cost of the devaluation or detriment of what is researched and produced in Brazil. The author further adds that

In this way, and in the manner of colonization, we are merely additions, “cultural” specificities that join the scientific history of first-world countries with our “data.” In a certain way, we are part of the scientific experience “there.” Thus there always functions a discursive *deixis* that in its “essence” (ideologically posed) separates us from the “scientific space,” from the “place of science.” We shall see how, under these conditions, thinking discursively, if there is no place for meaning, there is no place for the subject of science “from here.” (Orlandi, 2009, p. 183)

Sliding these considerations into the relations between “whites” and “Indians” in current Brazilian society, the situation not only resembles this, but becomes even more aggravated. To understand the dimension of this, it is necessary to analyze, at least, aspects related to the identity of the Indigenous person—the one he or she has and the one society constructs for him or her—and the “identity” of legislation on ISE, within a broader context.

The Brazilian Constitution, according to the text presented by FUNAI, postulates certain prerogatives, of which we shall observe here the initial part:

Indigenous Peoples have the right to a specific, differentiated, intercultural, bilingual/multilingual, and community-based school education, as defined by the national legislation that grounds Indigenous School Education. Following the regime of collaboration, established by the Federal Constitution of 1988 and by the Law of Guidelines and Bases for National Education (LDB), national coordination of Indigenous School Education policies is the responsibility of the Ministry of Education (MEC), while the States and Municipalities are responsible for implementation in order to guarantee this right of Indigenous peoples. [...] it is fundamental for the establishment of relations between the State and Indigenous peoples that they recognize and respect the autonomy of Indigenous peoples and their own forms of organization.

At this point, more important than interpreting and/or analyzing the text, we consider it relevant to seek what it means for the Indigenous teacher; that is, to know what reading of it can be made by this subject.

A VERY BRIEF APPROACH TO THE INDIGENOUS SCHOOL

Based on the right guaranteed by the Brazilian Constitution, the result of Indigenous struggles and achievements, the school emerges. It is not the purpose of this study to draw the history of the school,

given the vastness of the discussions and information that would be necessary. However, it is also impossible not to touch minimally on this issue.

From the perspective adopted here, the problem is very well summarized in the words of D'Angelis and Veiga:

[...] the Indians do not know what a school is for; they do not know the school; they do not know what the objectives of the school are; what it wants to do there; whether it wants to improve or worsen, or sink or end or exterminate the Indians, nobody knows. But whoever places the school there knows what they want with the school. (1997, p. 214).

Another summary is relevant because it brings specific points concerning the original interests of the so-called “Indigenous school”:

In 1953, UNESCO published the document *The use of vernacular language in education*, establishing that “the best medium for teaching is the mother tongue of the student.” In this way, the initial bilingual education programs began to assume this axiom as basic. Subsequently, in 1957, the International Labour Organization (ILO) approved Convention 107, drawing international legal attention to the integration of Indigenous populations into national societies and the promotion of the use of their mother tongues. Currently, several Latin American countries have ratified the ILO Convention. Likewise, the Constitutions of these countries introduced articles referring to Indo-American languages and cultures. For example, according to the Constitution of Brazil approved in 1988, “Indians are recognized for their social organization, customs, languages, beliefs, and traditions (...),” Art. 231. In the aspect of teaching, it establishes that “regular elementary education shall be taught in Portuguese, while Indigenous communities are also assured the use of their mother tongues and their own learning processes,” Art. 2. Thus, Brazil today has legal bases for developing bilingual and intercultural education. In addition to the Federal Constitution, there are Decree 26/91, Interministerial Ordinance 559/91, Decree 1.904/96 which established the National Human Rights Program, Law 9.394/96—the Law of Guidelines and Bases of National Education (Darcy Ribeiro Law)—and the National Curricular Reference for Indigenous schools (MEC/SEF/DPEF). (Mori, 2002 p. 7)

This school, which emerges in this context, gradually takes shape(s). Without discussing which one or which ones, we will use the BASE DOCUMENT: Second National Conference on Indigenous School Education – II CONEEI, to guide us in a more generalized, more global form. The document reports (p. 4) that “In 2009, twenty-one years after the promulgation of the Constitution, the Ministry of Education (MEC) held the I CONEEI, organized in three stages: (1) Educational Communities; (2)

Regional; and (3) National.” It also reports that 50,000 Indigenous and non-Indigenous educators participated. There were a total of 1,836 Conferences in Educational Communities; 18 Regional Conferences; and the national stage took place in 2009, in Luziânia – GO, with the participation of 210 Indigenous peoples. On page 5, it is stated that the event constituted a historical milestone in which “for the first time the Brazilian State assumed the position of considering Indigenous peoples as protagonist subjects in the political decisions that affect the conduct of their educational systems.” It was also considered a “thermometer” by which one would measure “the school education offered to Indigenous peoples OR practiced by them.” (emphasis added). Of the results, I will mention only the highlighted proposition: a Proper System of Indigenous School Education, defended in the 18 Regional Conferences, whose number of requests in the 1,836 Community Conferences was not specified there.

The document mentions the 2015 School Census, indicating the presence of 3,085 Indigenous schools in Brazil, 273 (9%) of them in the Central-West Region, with a *deficit* of 30% in proper buildings for operation. It also totals 285,303 enrolled students for 17,707 teachers. We will also not address here other infrastructural problems involving water supply and sewage.

The agenda items of the II CONEEI, 2017 are five axes: I – Organization and Management of ISE; II – Differentiated Pedagogical Practices in ISE; III – Training and Valuation of Indigenous Teachers; IV – Policy of Assistance to ISE; V – Higher Education and Indigenous Peoples.

As already stated, the objective of this topic is only to configure the conditions of origin and existence of the so-called “Indigenous School.” Two points, however, may be highlighted: there are two sides in this space; MEC and CONEEI; Indigenous School Education still has its highest instance under the dominion of the non-Indigenous.

BRIEF APPROACH TO THE TERENA PEOPLE

Knowing the origin of peoples is very difficult. In general, each people creates myths and legends to explain its origin. The myth about how the Terena were created may be told in various ways. The differences among the narrated versions are linked to the moment and the situation experienced by the people when they tell this part of their history. (Bittencourt & Ladeira, 2000, p. 22)

Originating from the Guaná peoples (Layana, Kinikinao, and Exoaladi), after crossing the Paraguay River, they remained in the region of Miranda – MS. “The departure of the Terena from the Êxiva region was a historical milestone that is orally passed on to us by our elders” (Lindomar, 2012. p. 27). Skilled farmers, in the Paraguayan War they were great allies of the Brazilian army, also providing them with food. They believed the promises that their territories would be safeguarded.

Next, an important event would affect Terena life: the Paraguayan War. The most significant moment in Terena life was the Paraguayan War (1864–1870). This war, in which many countries participated—Brazil, Paraguay, Argentina, and Uruguay—also involved enslaved people of African origin and Indigenous peoples inhabiting the regions near the Paraguay River. The Terena and Guaicuru allied themselves with the Brazilians and fought to preserve their territory. After the Paraguayan War, many changes occurred in the region and, for the Terena, it meant the loss of most of their territory, which came to be disputed by white landowners, who arrived in increasing numbers to plant crops and raise cattle. (Bittencourt & Ladeira, 2000, p. 26)

However, according to the Terena researcher Antônio Carlos Seizer: “When the war ended, upon returning to their old villages, these had been taken over by farms. They then dispersed to work on the established farms. This period was called by the Terena the ‘time of servitude’” (Seizer da Silva. 2009. p. 23)

Thus, instead of having their lands safeguarded, the reality was different:

Between the years 1904/1905, the first four areas for the Terena were demarcated, in the then State of Mato Grosso, by Marshal Rondon. These areas were located, at the time, in the municipality of Miranda. They are: Bananal, Cachoeirinha, Ipegue, and Lalima. Examining Rondon’s manuscripts concerning these demarcations, one perceives that, in all these areas, there were successive invasions, with a reduction of the Union Heritage under the usufruct of the Indigenous communities in each revalidation⁵ carried out. (Cardoso, 2004, p. 17)

Before effective contact with Brazilian soldiers in the Paraguayan War, the Terena maintained their customs and traditions. They were a harmonious people among themselves and with the non-Indigenous, whom they called *purútuye*. Having had their customs transformed by coexistence with the non-Indigenous, they also received the offensive nickname “Bugre,” which they reject.

In the era of the military man Rondon, who was the son of a Terena woman, some of their lands were delimited. Resistant, for decades they have struggled for their autonomy, whether through study or through occupying positions in various segments of society. Today, they also organize themselves in cities in the so-called “Urban Villages.”

However, many of them struggle to improve their quality of life while maintaining what remains of their structures within the villages, or “at the bases,” as they say, seeking to reconstruct their own social organization and identity, living with their families.

Map of Terena villages today:



IMAGE 2: Terena Villages in Mato Grosso do Sul
Source: Celso Smanioto, 2010.

According to the Terena researcher Reginaldo:

Currently, the Terena organize themselves into two types of leadership: the traditional, formed by the chief and his members elected by the community through direct and open voting; and party-political leaders, who form part of the political base of the municipal government or state government. (Reginaldo, 2019, p. 20.)

In addition to this organization cleaved between internal and external societies, they organize themselves at their bases, seeking strengthening through union with their own peers, as Reginaldo explains:

[...] the Terena of the State of Mato Grosso do Sul, who organized themselves to resist the current model, created “The Great Terena Assembly” (HanaitiHo'únevoTênoe), through which any and all rights related to them are discussed, in all segments (education, health, land and territorial issues, etc.) (Reginaldo, 2019, p. 20.)

Today they number approximately 25,000 *terenoé*, most of them in the State of Mato Grosso do Sul.

DISCOURSE ON DIFFERENTIATED SCHOOL EDUCATION

(DEED 0103) [...] from my point of view, **differentiated**, it would already encompass all levels of knowledge, right?

We cite this utterance only to mark the effect of meaning of reinforcing what was previously analyzed. The configuration of utterance (EEE0101) is maintained; therefore, the effects of meaning produced are reaffirmed by it.

(DEED 0104) So, I think so. **Differentiated**? Yeeah... because we have there a curriculum that encompassess, uhhh, the Portuguese language and then Terena. Uhh... I believe thaaat ... in this question there is, there is indeed. From my point of view.

The subject, illusorily, positions himself through the use of the explicit person marker, and appears to appropriate what he says through the use of “I think”; this utterance is an example of “frankly *available* discourses.” There continues to be use of the conditional form, marking the nonexistence of differentiated school education. The subject discourses by positioning himself, once again, as his own other, yet is soon positioned within the “frankly available discourse.” He says what he has to say, after a reluctant “Yeeah...” to come out. There are some interpolations of hesitating expressions—“Yeeah... / encompassesss, uhhh / Uhh... / thaaat”—and he presents the cause for the existence of differentiated education: “because we have there a curriculum.” Once again there emerges a struggle between a “reluctant” or “resistant” subject before a theme, making use of a suspended discourse, which leaps from the margin into discussion, and another who appropriates an available, authorized, borrowed discourse. In “Uhh... I believe thaaat ... in this question there is, there is indeed. From my point of view.” He “says himself” intermittently again: even after having said an available “yes,” a mark of a kind of individuation pressured by a given force emerges, an effect of the use of “I believe”; a new hesitation and the contradiction brought forth by the use of “in this question.” That is, the cause, the proof for the existence of differentiated education, an effect of meaning that constituted a subject interpellated by a given force, becomes reduced, restricted, by the use of “in this question,” and there escapes an effect of meaning that carries with it a subject divided between the “ought-to-say” and resistance to it. Subject positions reaffirmed by “there is, there is indeed,” in an effort marked by the triple affirmation of something that he or his other had just denied.

(DEED 0105) Differentiated is whenn the ahaa school itself, it creates a curriculum, when it creates a didactic organization aaand this becomes a differentiated school.

The use of “this”: “curriculum” and “didactic organization”; following the model of what happens in (DEED 0104), inscribing itself in the space of “available discourse.”

(DEED 0106) (Differentiated School Education) At the moment, not yet. I do not consider that Indigenous school education is yet differentiated. Because there are still many things, uhh, that are in progress. Aaaaand, because they are in progress, it is still not differentiated, and another thing is because many times, uhh, education, for it to be differentiated, it is not only to stop from the, uhh, curriculum, for example the curriculum today that is, that comes from the secretariat. But for me aaaa uhhh differentiated education is when iit encompasses, uhh, all, all areas, that is, iit links, not only iin, specifically in the language, but also that iit, it there, it makes aaaa uhhh—how can I say it? (pause)—it-it is not mixing the word, but it is more or less something like that, right?, that iit uhhh does not leave only foor, for the language, right?, for the mother tongue, but that it finds a way there to encompass all disciplines.

The previous utterance, although still marked by some hesitations, constitutes, through its effects of meaning, the identity of a “resistant” subject. However, by resisting, he brings the presence of the “frankly available discourse” through negation: “it is not only to stop from the, uhh, curriculum, for example the curriculum today that is, that comes from the secretariat.” And in the construction of this negation, through the symbolic, through failure, through equivocation and through the interpretation of the constitutive exteriority and discursive historicity of the formulated discourse, two revealing effects of meaning emerge: 1—“the curriculum today that is”—and here we have a sample of the subject’s inscription in language, of the abstract linguistic being allied to the materiality of language: The curriculum—the element about which information is brought, remains today—a temporal marker that positions this old reality in the now, in the present—is—a verb with complete meaning, through the abandonment of the construction by the resistant subject; which allows the effect of meaning of permanence, through historicity: as it has always been—but which, also, seen in this context, may connect to something the subject omits there, yet concludes: is [set]. Thus, one has that differentiated Indigenous school education is not Indigenous and is not differentiated.

In this utterance, marked by resistance, another way was found to complete the statement: “that comes from the secretariat.” Linguistically, coming from the Department of Education is the characteristic of the curriculum up to that point, defining differentiated Indigenous school education. Historically, it is the mark of the “colonizer’s” control over the Indigenous person.

(DEED 0107) Yes, for example, this, this differentiated education, iiii, as I just said, it encompasses va-, vari-, various areas, right?, for example, ethnomathematics, right?, I'll cite an example of ethnomathematics, it can there, at the same time, work with the curriculum that is set, right?, and, at the same time, it can create its own, right?, so, more or less in that sense. That is what there isn't (in the school where he works). (...)

The construction “va-, vari-, various areas,” marked by a kind of gradation, brings forth the effort to break with the available concept of the presence of a single area denoting the differential. However, the weight of what is set returns: “I'll cite an example of ethnomathematics, it can there, work with the curriculum that is set [...] and, at the same time, it can create its own”—“at the same time”: there is the established frontier, the point of conflict, of contradiction of the Terena Indigenous teacher-subject of the Village: positioning oneself between what “ought to be” and what “wants to be.” “right?”: a triple, insistent search for confirmation of what is discoursed, a search for something to support this positioning.

(DEED 0108) Differentiated, look, from, from what I researched and from what, before, when I studied, ahaa the teachers used to say a lot “differentiated school”

If “what I say says me,” in “my” broad context, in this historicity, silence protects me. This utterance constructs a subject who does not submit, but does not resist; in a kind of silencing of resistance, he is constituted by the search for authorized or available discourse; however, he announces that, when he speaks, it is not he who speaks.

(DEED 0109) “And to bring local knowledge into reality, I think it is a, like, trying to place, in the classroom, local knowledge, and to make it so that, through this knowledge, you can discover, right, the world, through, by means of this knowledge, uhhh, see that other realities, uhhh, are equal to your knowledge.”

In “And to bring local knowledge into reality,” effects of meaning emerge that identify a resistant, denouncing subject: there exists a “reality,” and “local knowledge” has not been part of it. In this context, whose discourse theme is differentiated education, there also emerges the effect of meaning that there is a reality opposing Indigenous knowledge. This reality is what is experienced in the Indigenous school: what

is being called reality is the school, which is located within the village. Concomitantly, “local knowledge” is also located within the village, but it is not the “reality.” Therefore, within the Indigenous village, reality is not Indigenous! Thus there are two forces, and a force that is not Indigenous has dominated the Indigenous force.

In “And to bring local knowledge into reality” added to “I think it is a, like, trying to place, in the classroom, local knowledge,” the resistant subject is identified; appropriating the linguistic resource of using the infinitive as an imperative, he inscribes himself in language by calling others to “bring knowledge” and “try to place it in the classroom.” However, the use of “try” produces the effect of meaning of an opposing force ready to combat this practice, in the school located within the village under the aegis of a constitution that declares the existence of differentiated Indigenous school education since 1988.

(DEED 0110) but, then, if we were to research in depth, discover many riches, I think we would have this differentiated school, and our culture study in depth. And discover, and we would discover this. But, like, today I think this, the concept of differentiated school, is fragmented.

The use of “but” produces an effect of meaning of something that comes to supersede the previous situation. “then,” initiating a conclusion that is interrupted by a new factor: “if we were to research in depth,” presents a condition for the existence of differentiated education. This produces effects of meaning of something not yet identified, not practiced, and needing to be “discovered”—now by the Indigenous person—which, although forgotten, hidden, his memory, in some way, recognizes as “riches.”

After this interpolation for the presentation of the aforementioned condition, the conclusion brought in this utterance is resumed: “then I think I think we would have this differentiated school,” reinforcing the possibility of having it, denying its existence.

(DEEE0111) “If it exists... I cannot say that it does not exist, right?, but at least the idea, in the idea of some teachers, is to make the school, it be differentiated, right? In the sense of being bilingual, uh, practicing the culture, and... I believe that is it.”

In “I cannot say that it does not exist, right?” the subject’s positioning before an other repeats the modality of authorized discourse; illusorily remaining obedient, he rebels through the very attempt to deny reality, to subject himself to a discourse permitted to him. And he strengthens himself in his resistance with the utterance after the adversative conjunction “but at least the idea, in the idea of some teachers, is to make the school, it be differentiated.” And, again, one can perceive a cleavage in the Indigenous subject who, ‘in possession of an authorized discourse,’ does not explicitly deny it, but by saying it, positions himself in a saying that he appropriates as his own, in the illusion of having created it based on his observations.

(DEED 0112) “I think the word already says it, ‘differentiated’: you work with something different. Different from what? Different from whaaat, from what comes from the government to us. As I said previously, not that you are going to stop doing it, but you differentiate according to what the reality of our students is”

In “I think,” the discourse that would identify the subject echoes before its concealment through the use of the elliptical form and in a “ready meaning” of the word “differentiated,” producing a meaning of hiding oneself within one’s own discourse. Subsequently, the division of the subject with an other within himself is resumed, with whom he dialogues, in a question-and-answer game through which ideology emerges, even after an apparent hesitation—whaaat—: different from what the government sends. The metaphor in question displaces a meaning of the word in the law “differentiated education” toward a history of liberation from the dominion imposed by the government. Supported by the work between paraphrase and polysemy, the discourse also produces the displacement from the position of colonized subject to that of autonomous, resistant, Terena subject. Like someone who strikes and hides the hand, between the leaps from one position to another, he resumes his authorized position through “As I said previously, not that you are going to stop doing it, but you differentiate according to what the reality of our students is.” In “not that you are going to stop doing it,” he returns to the authorized, available discourse; however, the equivocation of language assists him in his veiled resistance, semi-apparent in its

flashes. Thus, the use of “the reality of our students” allows him, paraphrastically-polysemically, to play within his cleavage: he is the subject of the authorized discourse, positioning himself in the theme of school education; but he is also the subject of the discourse of resistance, who denied that “which comes from the government to us.”

(DEED 0113) Yes. Differentiated education is taking place even because of, as I told you, right?, the Terena language itself we are working on it, but, to be differentiated, it does not need to be, it is not only necessary to be there, on paper. Differentiated education has to happen in practice. As I said previously, I try to work as much as possible, to draw as much as possible from myself in order to be teaching the culture to our students, right? And the teachers themselves also work on this, but I believe that, to be differentiated, uhh, it is possible to do more than we are already doing.

Discourse strongly marked by contradiction, producing an effect of meaning that does not go against what has been analyzed thus far, but rather intensifies the meanings produced. In “has to happen in practice, differentiated education,” by displacing the meanings produced by the joint use of the underlined verbal forms, an imperative meaning is produced: differentiated education must come into existence.

(DEED 0114) A differentiated school education is an education that, uhhh, even the name itself says it, is different, right? Where youuu apply not only that traditional mode, but rather in a wayyy, in another manner, in another differentiated way. With your own way, right? Sometimes the student remains only in that same sameness of board, blackboard, blackboard and classroom, so a differentiated education, it provides you, uh, “un-experience,” right? Uh, only in the classroom, learning only in the classroom, but rather, uh, learning in another way, another different way, another way that can contribute to teaching education, right? That is what I understand about differentiated education.

There is the real of language, equivocation, non-transparency betraying the Adamic subject who believes himself to be at the origin of saying, forgetting number 1, allied to forgetting number 2, believing I had to say it like this: “un-experience.” What has been the “experienced routine” in this prism of knowledge or of ought-to-know? Well then, the discourse identifies a resistant, denouncing subject, producing an effect of meaning of attestation for something that, in practice, in lived experience, does not

exist. The opposition to what has been experienced would be differentiated education, in its form or etymology, invented by the displacement of meaning of the word used, which has just been said, but which does not exist in the language used.

(DEED 0115) Yes. Yes, a differentiated education. / Where there is by law that we have to have a differentiated education and I as an Indigenous person uhh observe these, thiss, this line of thought, right?: we have to have a differentiated education. And, from my point of view, what it most encompasses is the question of, of Terena-language education, of Terena-language teaching. Uh, I have observed teachers, male teachers, female teachers, iin, in, in working on an education that would, like, contribute to, to a method of Terena-language teaching, because what most makes the wo-, what most fails in a differentiated education, in an Indigenous school, are specific materials for the Terena language. And I think that this, uh, makes the Terena-language teacher, uh, seek means, methods, so that you can be working on differentiated education. Like, more focused and that can contribute more to teaching. I think the Terena language is differentiated education, right?, as well as “Indigenous Issues,” uhh, the teaching of Indigenous issues, right?, encompasses this.

This discourse, on its linguistic surface, begins by affirming and reaffirming the existence of differentiated Indigenous school education. Then it relies on a discourse of authority—or an authorized discourse: the law. Subsequently, the subject is presented as Indigenous. And positioned as such, the utterance that follows this identification begins to have a sequence of hesitations. This produces an effect of meaning of once again being cleaved between authorized discourse and discourse of resistance. Again, “we have to have a differentiated education,” repeating the imperative effect. The novelty that emerges there is related to the issue of differentiated material, and once again the curriculum is mentioned: Terena Language and Indigenous Issues.

(DEED 0116) Ah, I think that Indigenous school education, first that the, the Indigenous peoples of Brazil they have already left this utopia of, of the 1960s, 70s, whenn most of these leaders, in fact, have already died, who fought so that one day in Brazil such a thing as differentiated Indigenous school education would arrive. But, this we achieved, this the Indigenous communities already have. This is one of the privileges; now, to make it work in, as it has to work, that is difficult, but it is not... it is never too late.

In this discursive formation, an Indigenous-resistant subject is identified, historically positioned in the historicity of the issue. The use of expressions such as “utopia”; “such a thing” produces the effect of meaning of the distance that existed between Indigenous peoples and this differentiated education. The non-transparency of language refers there to a historical-social process in which, as the “first” point in discourse, its exit from it, or abandonment, is demarcated. In a metaphorical movement, in which the “utopia” is not “shaken,” but there is an exit from it. This is followed by the materiality of a past of struggle waged by Indigenous leaders; how this occurred is silenced, but history materializes in “died,” “in fact”: this truth marked in this discourse, opposing other “untrue” ones. In “who fought,” the subject, subjected to language, makes use of a sentential adjective characterizing “leaders.” By sliding the meanings metaphorically through the use of “battles,” a field of confrontation comes to light between at least two opposing sides/groups: Indigenous and non-Indigenous (Indigenous and colonizers—even if modern); a battle occurs through confrontations, clashes, disputes over power; use of “weapons” (firearms and other objects; limitations; laws; intimidation; among others, and language itself—using the Portuguese language of the “official Brazilian nation” to the detriment of Indigenous languages, of the various other silenced, erased, unofficialized, and denied “Brazilian nations.” After all, analyzing the broad and restricted contexts, on what terms did the discussions take place between levels so unequal in their mastery of the Portuguese language? On what terms were the finalizations of each stage carried out through this same lens?

In “this we achieved, this the Indigenous communities already have,” a stage is concluded, an effect of meaning produced by “we achieved” and “we have.” There occurs the use of a temporal divider between past and present: “now”; bringing forth an effect of contradiction between what is said and what is practiced, between the law conquered and guaranteed and the practice of education. “to make it work in, as it has to work”: effect of meaning: it still does not work. Differentiated Indigenous school education, resumed in “it,” is “difficult.” By displacement of meaning, something difficult is not something that is not attempted, but something that encounters difficulties in coming into being (What

difficulties?). Opposed to the obstacles to such practice, there is: “but it is not... it is never too late,” producing an effect of continuity of the search for, of hope for, even though the real today is the non-concreteness and the difficulty/difficulties for.

(DEEE0117) So we will never achieve differentiated and quality Indigenous school education if we teachers do not qualify ourselves, seeking new knowledge, specializations, uhh, master’s, a doctorate, aand, this I think also has to come from a consensus, from the teacher himself

Introduced by an element of conclusion, the utterance still brings a condition for the implementation of DISE marked by the use of “if.” In this social discourse, there is a discursive formation of resistance and struggle for autonomy/authorship established in “qualify”—qualification through academic degrees. Effect of meaning of appropriation of the institutionalized “weapons” used by non-Indigenous people, whose possession can guarantee them, Indigenous teachers, the construction they aspire to.

DISCOURSE ON INTERCULTURAL SCHOOL EDUCATION

(DEEI 0118) an intercultural education inn, within the Terena peoples? Ah, an intercultural education for me would be... you bringing the culture inside, right?

Similar to EEIE0101, the use of the form “would be” displaces from other discourses the meaning of dependence on a prior fact for this possibility of realization; a possibility not yet realized.

(DEEI 0119) Yes, I perceive that we need to foster this, right? And not only in, let’s take there, on April 19, right? Which is a lot. So we need to seek our history, which is millenary. Aaaand, we have superficial knowledge, right? But if we go deeper, right? Certainly we will bring much more, right?,

Again, the effects of meaning of bringing into existence, since it does not exist.

(DEEI 0120) So I think we have a lot to be raised in, within the, the history of a people. And this knowledge, it needs to be. But how, right? Is it only we, who are teachers, who have to be involved in this?

In addition to marks already commented upon previously, in “only we, who are teachers,” the emphasis demarcated in the form “only” brings to light, in this social discourse with suspended characteristics, an “only,” a “restricted group,” whose force does not totalize the necessary force for the functioning of a given model of education.

DISCOURSE ON BILINGUAL/MULTILINGUAL SCHOOL EDUCATION

(DEEB 0121) a bilingual school education would be, you communicate in two languages. In the case, our school, uhh, they say it is bilingual, right?, but in my opinion... it is not bilingual. Because there are few people who speak the mother tongue, understand? Today Portuguese is used more. So, for me, uhhh, there would have to be both, right? It would have to be the Terena language, all students and teachers communicating, and also with another national language, which is Portuguese. So where we have there this issue that is said, that the mother tongue is the first language, and the Portuguese language is the second. And I perceive that it would be a school in this way, where these two languages would be well attuned within a community or even within the school.

The use of “would be” again displaces from other discourses the meaning of dependence on a prior fact for this possibility of realization; a possibility not yet realized.

The utterance “they say it is bilingual” inscribes itself in a paraphrastic process that anchors forgetting number two, in which the subject deludes himself into believing he has chosen this way of saying. Thus, by choosing the form “they say,” he inscribes himself in language by making the subject indeterminate. By subjecting himself, he distances from his formulation the proximity or participation in attesting that school education in the village is bilingual. However, he refers to the “authorship” of that already-said, an existing interdiscourse, yet distanced by the anonymity of the subject who said it there.

Whereas in “my opinion,” positioned as the origin of the saying, he appropriates, marked by the first-person possessive, the discourse of denial of the existence of bilingual school education in the aforementioned school.

(DEEB 0122) Bilingual, bilingual is, in my case, I consider myself bilingual, right?, I know.. am fluent in the Terena language, right?

The subjection to language, the use of frankly available discourse, demarcated five times by the use of the first person, projects a subject who identified himself with such formulation, appropriating it, positioned as author of the saying.

(DEEB 0123) So I think that, since it is a bilingual school, the school of/of the Village of, it leaves, uhhh, I do not say something to be desired, but I think that it is there, to function, but it is not achieving its objective, so much so that the Portuguese language, for example, it is the first language. Let's suppose: in a 4H workload for Portuguese language, uhhh, we have there the mother tongue: one class, for example. So it is out of balance. So I think that it has a lot to advance in these issues. So at the school, the bilingual school, at the Ndeti School, it is a, it is kind of odd. It is still behind what is supposed to happen. Now, I think that, I don't know, because the legislation is there. It supports all of this. We have Resolution 05, we have the of, the Constitution itself. We have there/there there, the, the LDB; but iiiiit, I don't know what is happening for this to work as bilingual. Because teachers we have... uhhh, I think that this part there is really up to teachers. Mainly for the coordination to put, to make fun/function, because it is out of balance.

In (DEEB 0123), the constitution of utterance (DEEB 0122) is repeated; however, there also emerges what I previously called the subject cleaved between authorized, available discourse and appropriated discourse, projecting glimpses of a subject who says what he must say in opposition to a resistant subject: “it leaves, uhhh, I do not say something to be desired, but I think that it is there, to function, but it is not achieving its objective.” He must say that “it does not leave something to be desired,” he hesitates (uhhh), resisting; subsequently, the appropriation of another formulation emerges, demarcated by the use of the first person and by a need to say “I think,” illusorily marking resistance and the appropriation of something that was at the margin. The conflict between these two positionings is

demarcated by the repetition of “but,” metaphorizing the effect of contradiction and of greater weight in what is said after this form, effecting the negation, a leap: “it [BSE/school] is not achieving its objective.”

FINAL CONSIDERATIONS

I seek to understand the sensible, the body, aiming to understand the meaning of this bond that unites us even in totally adverse situations and that makes a subject, even massacred, still echo in history and in the symbolic, not ceasing to be a social subject. (Orlandi, 2006, p. 7)

Reiterating that this corpus was analyzed under the theoretical framework of Orlandian DA, one cannot fail to reiterate also the historical issues of the Terena Indigenous subject as a broad context to be considered. In this sense, in the face of the non-transparency of language, one has as one of the many conditions of production more than 500 years of resistance by this nation silenced by the official Brazilian nation that enveloped it. Therefore, if we think of the founding silence of discourse, it is still possible to think of the forms that arise in/for the formulation of discourse, within diverse discursive formations of an invaded, repressed, persecuted, massacred, and [sur]viving people.

The Terena of today, part of the so-called Indigenous peoples who remained and reorganized themselves, hold a current identity, yet never dissociated from that of the “colonized” Indigenous nations. The historical past of a people is part of its identification for itself and for the other. The game of power remains latent, demarcated in the game of social projection prevailing in the I and in the OTHER; in WHO AM I TO SPEAK TO YOU IN THIS WAY; in WHO IS THE OTHER THAT I SHOULD SPEAK TO HIM/HER IN THIS WAY and in WHAT I SPEAK TO YOU IN THIS WAY. The sayings that were said in other places were often said in confrontations of blood, abuse, dispossession, extermination. Interdiscourses have never reflected to me so much precaution, protection, so much so that, many times, the topics were directed toward other directions.

To respond, the contemporary Terena subject, who for us only “paraphrastically” can be this, would indeed use the metaphor of the rhea, which he himself appropriates in his Kipae; as a researcher, I do not see myself as having the right to do more than this. Thus, he will continue to be.

If the original question of this research was “What is a specific, differentiated, intercultural, bilingual school education?”, the discourses analyzed proved the effects of meaning of the invisible borders that separate Brazilians from Brazil today. I found answers to what I was not looking for, and I confess that I would have preferred not to have found some of them. I, who am part of them and of a so-called other, who is monstrously the tormentor of his fellow human being. Discourse analysis is a perverse lens, effective in showing the meanings of truths that our white society (at the cost of much crying) has silenced/tries to silence. We are descendants of this.

The analyses of the utterances of the four researched topics produced effects of meaning identifying three Indigenous school educations: 1 – the one that warriors fought to have and that culminated in legal records; 2 – the one that the Brazilian State constructed/constructs; 3 – the one that the Terena Indigenous teacher-subject aspires to/constructs through his resistance.

Regarding 1, the battled-for education, mentioned by a subject positioned as militants of the 1960s, 70s, contained the outlines of what the peoples, in the figure of those warriors, demanded.

With regard to two, it concerns the implementation of laws and resolutions that declare the rights of Indigenous peoples in the issues raised in this research, but that position themselves in the place of dictating to them what to do. This is how the State decides what is good for the Indigenous person and what he or she needs.

The third type identifies an ISE present on paper, viewed, on one hand, as a Greek gift: metaphorically, from History emerge effects of meaning that I must not accept a gift from the colonizer, even if he is now called republic; on the other: “who is he that he should speak to me in this way?” The rhea, in its step forward, wants to choose where to tread, the direction to take. It wants autonomy and

rejects the seal of D. Manuel. For its part, the State insists on configuring, for Indigenous peoples, and therefore also for the Terena, the model of education.

The Terena subject dances the kipae; he holds back the step when using the discourses of right, individuated by the State, assuming an authorized, available social discourse; however, he is seized by leaps that bring to the surface other discourses, with which he identifies, which he appropriates in discursive formations of resistance.

They are furtive discourses, which very ephemerally identify discourses in which, before the State, the Terena is not, remains silenced, now by obligatory and juridical sayings. Under these conditions of production, the discourse of the Terena teacher-subject comes to light through a discourse marginalized by this State, in outbursts. Hence his cleaved identity, which we observed many times in the analyses.

Such a process is delaying: it has delayed progress in the ISE of the Village, which is still not fully specific, nor differentiated, nor intercultural, nor community-based for the resistant Terena subject. The State delays, in its policy of colonization of a people, still attempting to force it to fit into its molds. It delays Brazil in its plurality and diversity as a nation, for by concentrating its wealth—economic and cultural—in the hands of the few, it restricts itself to the Middle Ages, in politics and behavior.

Indigenous School Education will be Indigenous from the moment when we, the Brazilians who own the official Brazilian language, from the height of our ignorance, manage to analyze the word we use to characterize it: “of the Indian.” The desire to position oneself as owners of the land still prevails, freezing this updated colonizer in the position of owner of what is not his. Ahead of us, the rhea has already understood this.

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THE RECONFIGURATION OF DISTANCE EDUCATION IN TEACHER TRAINING PROGRAMS TOWARD A BLENDED LEARNING MODEL: PERSPECTIVES, CHALLENGES, AND IMPACTS ON TEACHER EDUCATION

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Abstract

Technological and educational transformations over recent decades have promoted significant changes in higher education models, especially in teacher education programs. In this context, distance education has undergone a reconfiguration process that favored the consolidation of the semi-presential model, characterized by the integration of face-to-face activities and virtual learning environments. This movement has intensified debates regarding educational quality, pedagogical innovation, and the competencies required for contemporary teaching practice. Therefore, this study aimed to analyze the perspectives, challenges, and impacts of the transition from distance education to the semi-presential model in teacher education programs. This is an integrative literature review with a qualitative, exploratory, and descriptive approach, based on national and international studies published between 2021 and 2026. The search was conducted in recognized scientific databases using descriptors related to hybrid education, teacher education, and semi-presential teaching. Data were analyzed through thematic content analysis, allowing the organization of findings into analytical categories. The results showed that the semi-presential model promotes student autonomy, development of digital competencies, curricular flexibility, and integration between theory and pedagogical practice. However, challenges related to technological infrastructure, pedagogical qualification, inequalities in access, and curricular reorganization remain. It is concluded that the consolidation of hybrid teaching depends on consistent pedagogical planning, institutional investment, and continuous teacher training, aiming to strengthen more critical, innovative, and contemporary educational processes.

Keywords: Digital competencies, Educational quality, Pedagogical innovation, Active methodologies, Technological mediation.

INTRODUCTION

The provision of courses in the distance education modality (DE) in Brazil has had legal support since the Law of Guidelines and Bases of National Education (Law No. 9,394/1996), which recognizes

this modality as part of the Brazilian educational system (Brasil, 1996). Since then, DE has expanded in higher education, especially in teacher training programs, following the advancement of digital technologies and the broadening of access to education (Oliveira, 2021).

In recent years, a reconfiguration of this modality toward the blended learning model has been observed, integrating face-to-face and digital activities and promoting greater flexibility and interaction in the teaching-learning process (Amenduni; Ligorio, 2022). This movement has been driven by contemporary educational transformations and by the need to adapt to new formative demands (Schmid et al., 2023).

This change is reinforced by recent regulations, such as Decree No. 12,456/2025, which regulates the provision of courses in face-to-face, blended, and distance modalities (Brasil, 2025). In addition, CNE/CES Resolution No. 1/2016 establishes guidelines for the organization of DE, evidencing the pursuit of greater quality and integration among modalities (Brasil, 2016).

In teacher education, the blended learning model contributes to the development of digital competencies, autonomy, and the use of active methodologies (Lemes; Santos, 2021). However, challenges persist regarding teachers' pedagogical training, infrastructure, and the articulation between face-to-face and virtual activities (Santos, 2024).

In view of this, it becomes necessary to understand how the reconfiguration of DE toward the blended learning model impacts teacher education in teacher training programs. Thus, the study aims to analyze the perspectives, challenges, and impacts of this transition, contributing to the debate on the quality of teacher education.

METHODOLOGY

This is an integrative literature review, with a qualitative approach and an exploratory and descriptive character, carried out in March 2026, with the objective of analyzing the reconfiguration of distance education in teacher training programs toward the blended learning model, considering its

perspectives, challenges, and impacts on teacher education.

TYPE OF RESEARCH AND METHODOLOGICAL PROCEDURES

The research is characterized as an integrative literature review, as it enables the synthesis of results from theoretical and empirical studies, contributing to a broader understanding of the phenomenon investigated. It adopts a qualitative approach, since it seeks to interpret the meanings present in scientific productions, in addition to having an exploratory and descriptive character.

The methodological path was structured according to the stages proposed by Whittemore and Knafl (2005), comprising: (I) definition of the research problem; (II) establishment of inclusion and exclusion criteria; (III) search and selection of studies; (IV) critical evaluation of the included material; (V) extraction and organization of information; and (VI) synthesis and presentation of the results.

The guiding research question was defined as follows: how does the reconfiguration of distance education toward the blended learning model impact teacher education in undergraduate teacher training programs, in light of recent regulations and contemporary educational transformations?

SEARCH STRATEGY AND SELECTION CRITERIA

The search for studies was conducted in recognized scientific databases, including the ScienceDirect platform, the CAPES Journal Portal, and national and international academic journals in the field of education, ensuring the breadth and quality of the selected sources.

For the search strategy, descriptors and free terms were used, initially organized in Portuguese and subsequently in English. The following descriptors in Portuguese were employed: “educação a distância”, “ensino híbrido”, “formação docente”, “licenciaturas” and “modelo semipresencial”. In English, the corresponding terms were used: “distance education”, “blended learning”, “teacher education”, “teacher training programs” and “hybrid or blended model”, combined through the Boolean operators AND and OR.

The inclusion criteria adopted were: full-text articles, published between 2021 and 2026, in any language subject to translation, that addressed distance education, blended learning, and teacher education. Relevant legal regulations for the topic were also included, such as Law No. 9,394/1996, CNE/CES Resolution No. 1/2016, and Decree No. 12,456/2025, due to their importance in regulating the modality.

As exclusion criteria, duplicate studies, incomplete publications, simple abstracts, and works that did not answer the guiding question were considered.

After the initial search, titles and abstracts were read, followed by the full reading of eligible studies, resulting in the definition of the final research sample.

DATA ANALYSIS

Data analysis was conducted through thematic content analysis, according to Bardin (2011), encompassing the stages of pre-analysis, exploration of the material, categorization, and interpretation of the results. The findings were organized into thematic axes related to the reconfiguration of DE, regulatory guidelines, the potentialities of the blended learning model, and challenges in teacher education, allowing for a critical and systematized analysis of the phenomenon investigated.

RESULTS AND DISCUSSION

The analysis of the selected studies shows that the reconfiguration of distance education toward the blended learning model in teacher training programs has been consolidating itself as a movement associated with pedagogical innovation, curricular flexibility, and the redefinition of formative processes in teaching. More than a transition between modalities, the results point to structural changes that affect the organization of teaching, pedagogical mediation, and the development of competencies required in the education of contemporary teachers.

Initially, the studies reveal consensus regarding the potential of the blended learning model to expand interactivity, student autonomy, and integration between theory and practice. This perspective is summarized in Chart 1, which presents the main findings identified in the literature and highlights convergences between potentialities and challenges associated with teacher education in hybrid contexts.

Chart 1

Synthesis of studies on the blended learning model and its impacts on teacher education

Author/Year	Objective of the study	Main findings	Contributions to teacher education
Amenduni; Ligorio (2022)	Analyze international perspectives on blended learning practices in higher education	They showed that the blended learning model favors pedagogical interaction, collaborative learning, student engagement, and the expansion of participatory strategies mediated by technologies	Contributes to understanding hybrid education as a pedagogical reconfiguration capable of strengthening innovative practices in initial teacher education
Can; Zorba; Işim (2024)	Assess the effects of hybrid teaching on the development of competencies and academic success among teacher education students	They identified significant gains in 21st-century competencies, autonomy, critical thinking, and academic performance among future teachers	Reinforces the potential of the blended learning model to qualify professional competencies required in contemporary teaching
Cesário; Machado (2025)	Examine the predominance of face-to-face, hybrid, and DE modalities in different countries	They demonstrated the growth of hybrid models as a global trend, associated with curricular flexibility and educational innovation	Evidences the consolidation of the blended learning model as a response to structural transformations in higher education
Lemes; Santos (2021)	Discuss teacher education in view of the demands of Education 4.0	They pointed to the need for integration between digital competencies, active methodologies, and innovative pedagogical practices in formative processes	Grounds the relationship between blended learning and the development of teacher profiles aligned with emerging educational demands
Oliveira (2021)	Reflect on the relevance of DE in pedagogy education	It evidenced DE as a strategy for democratizing access, formative flexibility, and expanding educational opportunities	Supports the importance of the modality as a basis for the qualified transition to the blended learning model

Pereira (2022)	Investigate teacher education in hybrid teaching and student diversity	Identified challenges related to personalization of learning, curricular reorganization, and pedagogical mediation in hybrid contexts	Contributes to understanding the didactic-pedagogical challenges in implementing the blended learning model
Perry; Findon; Cordingley (2021)	Review evidence on remote and blended teacher education	They demonstrated that blended practices enhance reflective formative experiences, active learning, and articulation between theory and practice	Reinforces the effectiveness of the hybrid model as a strategy for qualifying initial teacher education
Quintanilha <i>et al.</i> (2021)	Analyze the impacts of the emergency migration to digital modalities during the pandemic	They showed that the pandemic accelerated processes of pedagogical innovation and consolidated previously emerging hybrid practices	Highlights the pandemic context as a catalyst for the reconfiguration of teacher training programs toward blended formats
Santos (2024)	Discuss challenges of DE in student education	Identified weaknesses related to infrastructure, pedagogical mediation, institutional support, and inequalities in access	Evidences structural and pedagogical limits that condition the quality of education in hybrid contexts
Schmid <i>et al.</i> (2023)	Assess evidence on online teaching, hybrid teaching, and flipped classroom in teacher education	They pointed to positive effects of these approaches on learning, performance, and professional teacher development	Strengthens, based on robust empirical evidence, the effectiveness of the blended learning model for innovative formative processes
Stap <i>et al.</i> (2024)	Investigate pedagogical strategies for online learning in blended courses	They showed that online teaching strategies favor autonomy, student retention, and engagement in hybrid formative pathways	Contributes to understanding pedagogical practices that sustain the effectiveness of blended learning

Source: Authors (2026)

Based on these findings, it is observed that the blended learning model has been understood as a formative possibility capable of overcoming instrumental perspectives historically attributed to distance education. (Amenduni; Ligorio, 2022) emphasize that the integration between digital environments and face-to-face meetings expands opportunities for active learning, collaboration, and shared construction of knowledge, which is particularly relevant in teacher training programs, where the relational dimension of teaching is central.

This perspective is reinforced by (Schmid et al., 2023), whose meta-analysis demonstrates that hybrid approaches and flipped classroom models have positive effects on academic performance, engagement, and professional development in initial and continuing teacher education. These results are in dialogue with (Can; Zorba; Işim, 2024), as they point out that hybrid teaching favors competencies associated with critical thinking, problem solving, autonomy, and digital literacy, strategic dimensions for teaching in the twenty-first century.

In the field of pedagogical competencies, the results reveal that the reconfiguration toward the blended learning model drives changes in the formative profile of teachers. (Lemes; Santos, 2021) associate this movement with the demands of Education 4.0, highlighting the need for teachers prepared to mediate innovative processes, use digital resources, and mobilize active methodologies. In the same direction, (Perry; Findon; Cordingley, 2021) emphasize that the combination of remote and face-to-face mediation can strengthen reflective practices and more contextualized formative experiences.

Another relevant result concerns the international consolidation of hybrid models as an educational trend. (Cesário; Machado, 2025) indicate that, in several countries, the predominance of hybrid modalities results from their capacity to articulate flexibility and formative quality. This understanding reinforces that the reconfiguration of DE is not limited to technological changes, but is embedded in broader transformations in teacher education policies and practices.

However, the literature also evidences persistent challenges. One of the main challenges concerns pedagogical preparation for working in hybrid contexts. (Pereira, 2022) points out that student diversity and the need to personalize learning require curricular reorganization and revision of traditional practices. Complementarily, (Santos, 2024) emphasizes that limitations in infrastructure, difficulties in technological access, and institutional weaknesses may compromise the effectiveness of the blended learning model and broaden formative inequalities.

Another recurring aspect in the results refers to the role of the pandemic as an accelerator of this process. (Quintanilha et al., 2021) demonstrate that the compulsory migration to digital modalities

produced significant changes in perceptions of educational technologies, driving practices that subsequently contributed to the consolidation of the blended learning model. This scenario simultaneously revealed innovative potentialities and structural gaps already existing in higher education.

The dimension of student retention and protagonism also emerges as an important axis. (Stap_ et al.,_ 2024) identify that pedagogical strategies aimed at online learning in blended courses favor students' autonomy, participation, and engagement, especially in formative pathways that require flexibility and continuous monitoring. These results converge with (Oliveira, 2021), as they reinforce that the distance modality and its hybrid developments play a relevant role in broadening access and diversifying formative experiences.

In general, the analyzed studies indicate that the reconfiguration of teacher training programs toward the blended learning model has positive impacts on teacher education, especially regarding pedagogical innovation, development of digital competencies, and expansion of learning possibilities. However, the results also demonstrate that such advances depend on institutional conditions, pedagogical qualification, and curricular design consistent with the assumptions of hybrid education. In this sense, the transition to the blended learning model is configured not only as a reorganization of modality, but as a process of redefining teacher education itself in view of contemporary educational demands.

The results show that the reconfiguration of distance education toward the blended learning model in teacher training programs is not limited to a methodological or organizational change, but represents a broader movement of transformation in formative processes in teaching. In this sense, agreement is observed among the studies regarding the understanding that the blended learning model emerges as a response to contemporary demands for flexibility, pedagogical innovation, and the development of competencies compatible with the educational challenges of the twenty-first century.

From this perspective, Amenduni and Ligorio (2022) argue that blended learning broadens the possibilities of pedagogical interaction and re-signifies learning by integrating face-to-face and digital practices into more collaborative experiences. This understanding converges with Schmid_ et al_. (2023),

whose meta-analysis reinforces that hybrid models and approaches such as the flipped classroom favor academic performance, engagement, and professional development in initial and continuing teacher education. The convergence among these authors strengthens the understanding that the reconfiguration of DE does not represent a mere combination of formats, but an epistemological reorganization of teaching and learning practices.

This understanding is deepened by Can, Zorba, and Işim (2024), who demonstrate that the blended learning model contributes to the development of 21st-century competencies, such as critical thinking, autonomy, problem solving, and digital literacy, competencies that assume centrality in contemporary teacher education. In agreement, Lemes and Santos (2021) argue that Education 4.0 requires new professional profiles, demanding teacher education oriented toward innovation, digital culture, and active methodologies. The articulation between these studies shows that the transition to the blended learning model is not restricted to the incorporation of technologies, but involves redefinitions of the very concept of teaching.

Within the scope of teacher training programs, such reconfiguration has relevant implications for the articulation between theory and pedagogical practice. Perry, Findon, and Cordingley (2021) argue that blended experiences can enhance reflective practices and promote more contextualized formative pathways, especially when articulated with qualified pedagogical monitoring. This position dialogues with Oliveira (2021), who emphasizes that DE, by broadening access and formative flexibility, also offers conditions for diversifying pedagogical experiences, provided that it is sustained by educational intentionality. In this direction, there is consensus that the quality of teacher education in blended contexts depends less on the modality itself and more on the consistency of the pedagogical project that sustains it.

Another aspect widely corroborated among the studies concerns the structuring character of hybrid methodologies for curricular reorganization and the redefinition of teacher and student roles. For Pereira (2022), education in hybrid contexts requires overcoming transmissive practices and incorporating approaches centered on active learning, student diversity, and the personalization of teaching. This

discussion converges with Stap et al. (2024), by showing that online pedagogical strategies, when integrated into blended proposals, broaden students' autonomy, engagement, and retention. The agreement among these authors reinforces that reconfiguration toward the blended learning model demands not only technological innovation, but paradigmatic changes in pedagogical processes.

At the broader level of educational policies and trends, Cesário and Machado (2025) argue that the international expansion of hybrid models stems from their capacity to respond simultaneously to demands for flexibility, quality, and innovation. This understanding finds support in Amenduni and Ligorio (2022), who situate blended learning as an international phenomenon associated with the transformation of educational ecosystems. Such convergence suggests that the expansion of the blended learning model in teacher training programs does not constitute an isolated movement, but is part of global reconfigurations in the ways higher education is organized.

However, although the studies point to relevant potentialities, the literature is also convergent in recognizing the limits and tensions of this process. Santos (2024) problematizes that structural weaknesses, technological insufficiency, and gaps in teachers' pedagogical preparation may compromise the effectiveness of the blended learning model. In consonance, Pereira (2022) warns that the adoption of hybrid formats without curricular restructuring and institutional support tends to reproduce traditional practices in new environments, reducing the transformative potential of these modalities. The agreement among these authors shifts the discussion from an idealized view of blended learning to a critical understanding that its results depend on concrete material, pedagogical, and institutional conditions.

Another relevant interpretive axis concerns the impact of the pandemic on the acceleration of this process. Quintanilha et al. (2021) maintain that the compulsory migration to digital modalities functioned as a catalyst for educational innovation, making visible both the possibilities and the weaknesses of technology-mediated models. This analysis dialogues with Schmid et al. (2023), who point to the strengthening of hybrid approaches in the post-pandemic scenario as resulting from accumulated evidence regarding their effectiveness. At this point, there is convergence in understanding the pandemic not only

as a disruptive event, but as a milestone that drove the consolidation of the debate on blended models in higher education.

The discussion also shows that the positive impacts of the reconfiguration of DE are strongly associated with the development of critical digital competencies for teaching. Can, Zorba, and Işim (2024) emphasize that such competencies go beyond the instrumental mastery of technologies, involving cognitive, collaborative, and pedagogical dimensions. Lemes and Santos (2021) corroborate this understanding by emphasizing that teacher education, in the digital context, requires integration between innovation, critical thinking, and responsive educational practices. This agreement reinforces that the blended learning model may favor not only new ways of teaching, but new ways of being a teacher.

Thus, the discussion of the studies allows us to understand that the reconfiguration of teacher training programs toward the blended learning model has the potential to strengthen the quality of teacher education, expand learning experiences, and respond to contemporary demands in education. However, as indicated by Santos (2024), Pereira (2022), and Perry, Findon, and Cordingley (2021), such potentialities are only materialized when articulated with consistent institutional policies, qualified pedagogical design, and continuous teacher preparation.

In this way, the agreement among the analyzed authors indicates that the blended learning model should not be understood merely as a technical rearrangement between face-to-face presence and virtuality, but as a process of pedagogical, curricular, and epistemological reconfiguration of teacher education. This understanding shifts the debate from a discussion of modality to a broader reflection on formative quality, innovation, and the future of teacher training programs in view of contemporary educational transformations.

CONCLUSION

The reconfiguration of distance education toward the blended learning model in teacher training programs evidences a movement of transformation that goes beyond operational or technological

changes, configuring itself as a process of redefining the pedagogical foundations of teacher education.

Throughout this study, it was verified that the transition to hybrid models has been driven by contemporary demands for flexibility, methodological innovation, and integration between digital technologies and formative practices, pointing to new possibilities for the organization of higher education. In this scenario, the blended learning model presents itself as a strategy potentially capable of strengthening more dynamic, interactive formative experiences aligned with the demands of teaching in the twenty-first century.

The analyzed findings made it possible to understand that this reconfiguration produces significant impacts on the development of digital competencies, the autonomy of teacher education students, the adoption of active methodologies, and the articulation between theory and pedagogical practice. It was also observed that the blended learning model favors the expansion of student protagonism and contributes to re-signifying the roles of teachers and students in teaching and learning processes. From this perspective, the studies showed that the quality of this transition is directly related to the consistency of pedagogical projects, institutional support, and teachers' preparation to work in hybrid contexts.

However, the study also demonstrated that the advances associated with the blended learning model coexist with structural, pedagogical, and institutional challenges that cannot be disregarded. Issues related to technological infrastructure, inequalities in access, curricular reorganization, and pedagogical preparation for mediation in hybrid environments remain critical elements for the effectiveness of this modality. Thus, it is concluded that the reconfiguration of DE should not be understood only as the expansion of flexible formats, but as a process that requires commitment to formative quality, equity, and educational innovation.

Another relevant aspect evidenced was that the debate on the blended learning model in teacher training programs shifts the discussion toward broader dimensions of teacher education, involving educational policies, curricular transformations, and new teaching paradigms. From this perspective, the consolidation of this modality demands not only technological investments, but also the revision of

pedagogical conceptions, institutional strengthening, and the construction of practices that critically integrate face-to-face presence and virtuality. In this way, the study reinforces that the ongoing reconfiguration represents an opportunity to re-signify initial teacher education in view of contemporary educational demands.

As a contribution to the advancement of knowledge in the area, the development of empirical research is suggested to investigate the perception of teacher education students and teachers regarding the impacts of the blended learning model on the quality of education, as well as comparative studies between courses offered in different formative arrangements. It is also recommended that longitudinal studies be conducted to analyze the repercussions of this modality on the professional practice of graduates from teacher training programs, allowing for a deeper understanding of how blended education influences the practice of teaching and the constitution of professional competencies.

Finally, it is concluded that the reconfiguration of distance education toward the blended learning model constitutes a relevant and strategic phenomenon for the future of teacher training programs, as it articulates innovation, flexibility, and pedagogical potentialities for teacher education. Although challenges persist, the findings indicate that, when sustained by pedagogical intentionality and adequate institutional conditions, this model can contribute to more critical, responsive formative processes coherent with the transformations of contemporary education, reaffirming its role in strengthening the quality of teacher education.

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SOCIO-SPATIAL INEQUALITY IN FOCUS: HOW GEOGRAPHY CAN CONTRIBUTE TO THE CLASSROOM DEBATE

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Abstract

The phenomenon of socio-spatial inequality is a complex challenge manifested in the unequal distribution of resources and opportunities within geographic space, resulting in segregation and vulnerability. This text argues that it is urgent and essential to bring this issue to the center of the educational debate, with Geography being the discipline best suited to lead this discussion. Critical Geography provides the conceptual tools—such as socio-spatial segregation, territory, landscape, and place—for students to understand the origin and dynamics of disparities, demystifying the distribution of poverty and wealth as a structured rather than random process. The study transcends mere description, requiring a multi-scalar analysis that connects the global to the local, and uses the landscape as a "living geographic document" to reveal morphological and infrastructural contrasts (such as the juxtaposition of affluent neighborhoods

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and favelas). The incorporation of this theme, with the support of interdisciplinary dialogue and active methods such as Geotechnologies, aims to train a critical and proactive citizen capable of questioning power structures and acting as an agent of transformation in the construction of a more just and equitable space and society.

Keywords: Socio-spatial Inequality, Critical Geography, Segregation, Geographic Education.

INTRODUCTION

The phenomenon of socio-spatial inequality represents one of the most urgent and complex challenges of contemporary society, as it manifests itself in the inequitable distribution of resources, services, and opportunities within a given geographic space, resulting in landscapes of stark contrast and in the perpetuation of cycles of exclusion and vulnerability, thereby making it necessary to critically analyze the importance of bringing this issue to the center of the educational debate.

Within this narrative, authors such as Villaça emphasize that “Socio-spatial segregation is a process through which different social classes or strata tend to concentrate increasingly in different general regions or sets of neighborhoods of the metropolis” (Villaça, 2001, p. 142).

The classroom is, par excellence, one of the main loci of civic and critical formation, where students develop the tools necessary to interpret and transform the reality in which they are inserted. It is therefore essential that the school curriculum address issues that reflect the social and economic tensions of the real world, and socio-spatial inequality is a powerful mirror of these tensions.

In this context, Geography emerges as the discipline most intrinsically suited to conduct this debate, since its object of study—geographic space—is the stage on which social, economic, and political relations materialize, making it essential for deciphering the genesis and dynamics of the disparities observed, as Santos points out when stating that “Space is a true field of forces whose formation is unequal. This is the reason why spatial evolution does not appear in the same way everywhere” (Santos, 1978, p. 122).

One of the conceptual pillars offered by Geography is socio-spatial segregation, which explains how social groups are separated in urban or rural space on the basis of their economic capacity.

Understanding this concept is vital to demystify the supposedly random distribution of poverty and wealth, revealing it as a structured and often planned process, as also indicated by Santos, who considers that “It is through segregation that the dominant class controls urban space, subjecting it to its interests” (Santos, 1994, p. 74).

Another point applies to the concept of territory and territoriality, allowing students to understand inequality not only as a lack of access to resources, but also as a dispute over power and control over space. Where inequality exists, there is also the denial of territorial rights and the marginalization of certain groups in decision-making processes that affect their place of residence, as Souza considers when stating that “Territory, from this perspective, is therefore space defined and delimited by and through power relations” (Souza, 1995, p. 96).

The contribution of Geography to classroom debate is therefore methodological and conceptual, as it provides the categories of analysis—place, landscape, region, territory, and space—that make visible the power relations shaping the ground on which we walk, transforming the invisible into something palpable for the student’s critical gaze, as Carlos (1996, p. 27) points out: “Geography, when dealing with space, deals with the forms and contents that constitute it, which are forged in social relations; therefore, it is dealing with society as a whole, with the production of its existence and with the power that organizes and transforms it.”

The debate on socio-spatial inequality, conducted through Geography, must necessarily involve the urban question, which is where disparities become most glaring. Unequal access to basic sanitation, quality public transportation, leisure infrastructure, and health services is material proof of how unbalanced our development is.

Thus, Santos (2004, p. 76) argues that “Space, which appears to all of us as something ‘natural,’ ‘given,’ is, in fact, a social construction, the product of labor and history, and reflects the contradictions and inequalities of the society that produces it.”

More than merely a discussion, the teaching of this theme must culminate in the promotion of a critical and proactive consciousness, in which Geography not only diagnoses spatial problems but also points toward paths for more equitable territorial planning and for the construction of fairer and more inclusive cities.

In sum, the present work will delve into the specific didactic strategies that can be employed so that Geography teaching fulfills its role as a catalyst for this vital debate, transforming the classroom into a laboratory of citizenship capable of forming individuals who are conscious of and engaged with reducing disparities in their surroundings and in the world.

THEORETICAL FRAMEWORK

THE NATURE OF GEOGRAPHIC SPACE AS A STAGE FOR INEQUALITY

Geographic space is not merely a neutral backdrop, but rather a fundamental social, historical, and political construction that reflects and, simultaneously, amplifies the inequalities existing in society. Its nature is dynamic, the product of the incessant interaction between society and nature, being permanently shaped by human actions, especially economic and power-related ones. It encompasses both physical elements—relief, climate, hydrography—and social elements—cities, transportation networks, borders—all intertwined and subject to logics that promote the differentiated and often unjust appropriation of its resources and opportunities.

Therefore, Santos (1996) considers that:

Space is not only a stage on which actions unfold, but it itself participates in those actions, constituting with them either a vicious or virtuous circle. In other words, space is neither neutral nor innocent. It is loaded with values, interests, and power, and its organization is the result of struggle among men and among classes. [...] History takes place in space, but space is not merely the stage of history; it is a dimension of history. That is why we can speak of a spatialization of society and a socialization of space. What society produces is an inseparable, contradictory whole, in which forms inherited from the past are used and transformed by present social actions. This is what we call geographic space, the inseparable totality of systems of objects and systems of actions, which contains within its own constitution the marks of inequality and struggle. (Santos, 1996, p. 77–78).

This unequal appropriation is clearly manifested in territorial organization, where resources, infrastructure, and services are not distributed equitably. The central and more valued areas of cities, for example, concentrate investments and access to quality public goods, while peripheral areas and rural regions often lack basic necessities such as sanitation, health care, and education.

In this sense, the logic of capital plays a central role in the production of spatial inequality. Space is transformed into a commodity, where the value of land and real estate is determined by its location and profit potential, rather than by social need. This leads to socio-spatial segregation, where high-income groups occupy the best locations, while the poor are pushed into environmentally risky areas, far from jobs and services—a phenomenon visible in almost all major metropolises, as Harvey diagnoses when stating that “Residential differentiation must be interpreted in terms of the reproduction of social relations within capitalist society” (Harvey, 2014, p. 70).

At the global level, spatial inequality is expressed in the international division of labor and in power relations among countries, in which the concentration of wealth, technology, and decision-making centers in the so-called Global North contrasts with economic dependence and the exploitation of natural resources and labor in many nations of the Global South. This global structure is the result of a long historical process, marked by colonialism and neocolonialism, which established lasting spatial hierarchies that are difficult to reverse.

Therefore, Milton Santos considers that “The international division of labor spatially expresses the dependence and subordination of some countries in relation to others, which is manifested in the concentration of capital and technique in few places” (Santos, 2004, p. 57).

According to Harvey (2005, p. 159), “The process of accumulation by dispossession, which has sustained capitalist development since its colonial beginnings, continues to play a crucial role in structuring contemporary geographical inequalities.”

Another factor lies in mobility and in the flow of people, goods, and information, which are also unequal and essential for understanding spatial dynamics. While capital and elites circulate freely through globalized space, the migration of poor populations is frequently controlled, criminalized, and blocked by increasingly militarized borders. Likewise, access to the global communication network, the internet, is another marker of inequality, creating “connected places” and “disconnected places,” deepening digital and economic exclusion.

Thus, Milton Santos (1996), portraying this segregation, reports that:

Rugosities create inequalities. These are manifested, on the one hand, in the selectivity of flows—of money, goods, information, orders, and also people—and, on the other hand, in each place’s capacity or incapacity to receive these flows, according to its technical base and inherited availability. The result is the differentiation of spaces, with some places more connected and others less so, establishing a hierarchy of utilities and exclusions. (Santos, 1996, p. 195)

In this context, it is also important to highlight that the environmental issue is intrinsically linked to spatial inequality, considering that the most vulnerable populations are those who suffer most from environmental injustice, being disproportionately affected by pollution, the degradation of natural resources, and the impacts of climate change. Favelas located on hillsides or floodplain areas, riverine communities, and Indigenous groups, for example, are at greater risk of natural disasters and diseases transmitted due to the lack of sanitation, revealing a “geography of vulnerability.”

Therefore, authors such as Santos, Ribeiro, and Cunha (2017) report that the focus on the “geography of vulnerability” and disaster risks is broadly grounded in the literature, since “exposure to

risks and vulnerabilities is determined by the insertion of certain social groups in vulnerable geographic spaces, deprived of infrastructure and public services, and lacking instruments of social protection.”

Resistance and social struggle emerge, in this context, as factors in the transformation of space. Social movements for housing, land, improvements in transportation, and environmental rights contest the established spatial order. By occupying and claiming strategic areas, these movements seek to reappropriate space and democratize its use, forcing public authorities and the market to consider social interest to the detriment of the mere accumulation of capital, as Gohn (1997) states:

Urban social movements constitute society itself in motion, in the world, in and from its territories of existence, as a complex social totality that moves permanently in some direction. [...] Movements generate a series of innovations in the public sphere, both state and non-state, and in the private sphere; they participate directly or indirectly in a country’s political struggle, and contribute to the development and transformation of civil and political society. (Gohn, 1997, p. 251–252)

Thus, understanding geographic space as a stage for inequality requires an analysis that goes beyond the description of disparities, focusing on the power structures that produce them. Critical geography, by unveiling these relations, offers the conceptual tools to identify mechanisms of exclusion and to propose alternatives aimed at a more just, equitable, and inclusive territory, where access to the city and to resources is a universal right, not a privilege.

In sum, the nature of geographic space is inseparable from its political and social dimension. Recognizing that space is constructed and that this construction is intrinsically unequal is the first step toward civic engagement and transformative action. The struggle against inequality is, fundamentally, a struggle for the right to the city and to territory, a battle so that the stage of social life may become a space of opportunities and justice for all its inhabitants.

THEORETICAL FOUNDATIONS OF SOCIO-SPATIAL SEGREGATION

Socio-spatial segregation is a complex urban phenomenon that manifests itself in the unequal distribution of different social groups within the city's space. Its understanding requires an analysis of theoretical foundations that date back mainly to urban sociology and urban geography

In essence, segregation is not merely random dispersion, but rather the result of economic, political, and social processes that structure urban space in a hierarchical and exclusionary manner. The study of these foundations is crucial for unveiling the deep causes and persistent consequences of this inequality, in order to understand what Villaça argues when stating that “It is through segregation that the dominant class controls urban space, subjecting it to its interests” (Villaça, 1998, p. 359).

The first theoretical pillar for understanding segregation comes from the Chicago School in the early twentieth century, especially Ernest Burgess's concentric zone model (1925). Although criticized for its rigidity, this approach viewed the city as an organism in constant competition, where social groups and land uses migrated toward specific zones. It worked with the concepts of “succession” and “invasion,” suggesting that competition for land and land value naturally led to the formation of homogeneous neighborhoods, with poorer and newly arrived populations being “pushed” toward degraded central areas or toward peripheries lacking infrastructure.

A second set of theories, more focused on economic analysis, emphasizes the capitalist logic in the production of space. Authors such as David Harvey (2005) argue that “segregation is an inevitable by-product of the incessant pursuit of profit and capital accumulation in the real estate sector. Urban land is treated as a commodity, and the allocation of investments in infrastructure and services—schools, hospitals, transportation—is guided by where financial return is greatest. This generates differentiated land valorization, creating economic barriers that prevent low-income groups from accessing the best-equipped areas of the city.”

Still within this narrative, Harvey (2005) also considers that:

The producers of the built environment, both past and present, offer the worker a limited set of choices regarding living conditions. If he has limited resources to exercise effective demand, then he must make do with what he can obtain: cramped housing without infrastructure. (Harvey, 2005, p. 77)

Therefore, from the Marxist turn in geography and urban sociology onward, the focus shifted to the role of the State and power relations. Manuel Castells (1983), for example, emphasizes the importance of “collective consumption” (urban services) and social struggles for their appropriation. Segregation is seen not only as a result of the market, but also as a tool of social control and the reproduction of inequalities, where public policies on housing, zoning, and transportation may reinforce, intentionally or not, the spatial exclusion of marginalized groups.

Segregation is also analyzed from the perspective of identity relations and social discrimination. In this sense, the role of race, ethnicity, and social class transcends mere physical location. From this viewpoint, segregation is sustained by discriminatory practices in the labor and housing markets and by prejudices that lead to self-segregation or the avoidance of certain groups, consolidating spaces where identity and poverty become synonymous, as França (2022) points out:

Residential segregation by race and class is a structural and persistent phenomenon in Brazilian metropolises, where socioeconomic and racial inequalities overlap, resulting in the concentration of the Black and poor population in peripheral areas with less access to infrastructure and urban services. This spatialization of inequalities is not only a reflection, but a mechanism for reproducing social hierarchies, causing racial identity and poverty to become territorial markers (França, 2022, p. 198).

In summary, the theoretical foundations of socio-spatial segregation are multifaceted, requiring an approach that integrates ecological competition, the logic of capital, state power relations, and the dynamics of social discrimination. In other words, segregation is therefore the mirror of the social structure and its contradictions, and its persistence demonstrates the failure of the urban development model to guarantee the right to the city and the equitable distribution of opportunities for all its inhabitants.

THE ROLE OF LANDSCAPE IN REVEALING SOCIAL CONTRASTS

The landscape is not merely a passive setting, but rather a palimpsest on which the history of human relations and, fundamentally, profound social contrasts are inscribed. In its broadest conception, landscape is the result of the continuous interaction between nature and human action, reflecting the choices, priorities, and, crucially, inequalities of a society. When we analyze the distribution of resources, the quality of infrastructure, and land use, the urban or rural landscape becomes an unequivocal mirror of disparities in power and wealth, aligning with Milton Santos's observation that "Space is a true field of forces whose formation is unequal. This is the reason why spatial evolution does not appear in the same way everywhere" (Santos, 1978, p. 122).

Morphological contrast is perhaps the most evident manifestation of this revelation. The juxtaposition of high-standard gated communities, characterized by robust security, well-maintained green areas, and imposing architecture, alongside favelas or peripheral neighborhoods with precarious housing and disorderly density, immediately exposes spatial segregation. These visible "boundaries"—walls, rivers, or large avenues—are not accidental, but rather the result of housing policies and urban planning that have historically privileged certain groups to the detriment of others, materializing inequality in the built environment.

In addition to morphology, the infrastructure present in the landscape is a strong indicator of disparity, considering that affluent neighborhoods enjoy paved streets, efficient public lighting, complete basic sanitation networks, and easy access to quality transportation. By contrast, low-income areas often lack essential services, presenting open sewage, insufficient public transportation, and a lack of adequate leisure spaces, contributing to the fact that the absence or precariousness of these elements in the landscape is not merely a matter of comfort, but a factor that perpetuates the cycle of poverty and social exclusion.

Therefore, considering this narrative, Bittencourt emphasizes that "Socio-spatial inequalities are manifested in the differential allocation of resources in public works that, instead of effectively

contributing to social justice, reinforce the unequal distribution of the benefits and burdens of urbanization” (Bittencourt, 2021, p. 1).

The rural landscape also reveals these contrasts, frequently linked to land tenure structures, where large expanses of latifundia devoted to monoculture or extensive cattle ranching with high technology coexist with small family farming properties or precarious settlements, materializing the dispute over access to land. The landscape of the latifundium, often homogeneous and mechanized, contrasts with the diversity and fragility of peasant landscapes, revealing the concentration of wealth and the marginalization of rural workers.

The symbolism of the landscape is another crucial aspect, since certain buildings, monuments, or public areas are intentionally designed to celebrate power, wealth, or a hegemonic identity. Gleaming financial centers and revitalized historic neighborhoods become postcards, while landscapes of poverty are stigmatized and often rendered invisible in official discourse. This reveals that the landscape therefore not only reflects, but also ideologically reinforces the dominant social structure, as Lefebvre (2006) considers:

Space, far from being a passive receptacle, is actively produced and participates in the relations of production and productive forces, becoming, for the State and capital, a political instrument of capital importance. The representations of space—the space conceived by planners and urbanists—impose a dominant order of representation, often under ideological claims of order, rationality, and beauty, suffocating differences and making acceptable the asymmetrical and exclusionary processes that manifest themselves in the urban landscape. (Lefebvre, 2006, p. 69–70)

The landscape thus becomes a space of struggle and resistance, in which social movements, by occupying and transforming degraded areas or by fighting to maintain their traditional spaces—as in the case of quilombola or Indigenous communities—use the landscape itself as an arena to question the established order. The emergence of community gardens in abandoned lots or street art on gray walls are examples of how the landscape can be resignified as a political act of contestation against exclusion.

In sum, the landscape is a living geographic document that translates social injustices into concrete and visible forms. It also becomes the sedimented result of unequal historical and economic processes, where the quality of housing, the presence of infrastructure, and access to natural and urban goods rigidly demarcate the social position of its inhabitants. Reading the landscape critically therefore becomes fundamental to understanding and confronting the mechanisms of segregation and the persistence of contrasts in our contemporary societies.

GEOGRAPHY TEACHING AS AN AGENT OF TRANSFORMATION AND CIVIC CONSCIOUSNESS

Geography teaching transcends the mere memorization of the names of capitals, rivers, and mountains, as it is configured as a powerful tool for understanding the world and forming critical civic consciousness. In studying geographic space, the student not only locates phenomena, but unveils the complex interactions between society and nature, perceiving how territory is constructed and disputed. This initial approach is fundamental for the student to begin seeing himself or herself as an active agent within the spatial dynamics in which he or she is inserted, as Cavalcanti considers when stating that “Geography teaching is not only about teaching a set of contents and themes, but is, above all, about teaching a specific way of thinking, of perceiving reality” (Cavalcanti, 2010, p. 7).

Thus, the discipline acts as an agent of transformation by providing the conceptual lenses necessary for reading and interpreting reality. Concepts such as place, territory, landscape, and region make it possible to denaturalize social and environmental disparities, so that when analyzing the distribution of resources, spatial segregation in cities, or the impacts of globalization, the student is prompted to question the power structures that shape space and generate inequalities. This process of critical reflection therefore becomes the first step toward mobilization and the search for change.

Another point is linked to the development of civic consciousness, which is intrinsically connected to the ability to understand the spatial dimension of social problems. Geography teaches that

issues such as the water crisis, urban violence, unemployment, and climate change are not isolated events, but concrete manifestations that materialize in specific places. By tracing the connections between the local and the global, the student develops socio-environmental responsibility and perceives that his or her actions and public policies have a direct impact on the space lived by him or her and by the collective, as Cavalcanti (2012) states:

Knowledge of the dimensions that influence the formation and transformation of space is fundamental to the exercise of citizenship. But this understanding must be contextualized, because the local is often the result of global decisions. [...] It is from a dialectical perspective that we can establish this relationship among the global, the regional, and the local. (Cavalcanti, 2012, p. 86)

One of the central axes of contemporary geographic teaching is the promotion of diversity and respect for differences, indicating that the study of cultures, ethnicities, and different ways of life spread across the globe and within the same country contributes to the deconstruction of prejudices and stereotypes. By recognizing the plurality of landscapes and the multiplicity of territorialities, the student learns to value local identities and to understand the importance of intercultural dialogue for building a more just and inclusive society.

Still in the context of education for citizenship, Geography has a crucial role in addressing environmental issues and sustainability, seeking to promote an analysis of natural cycles, biome degradation, and the challenges of resource management, which teaches about the finitude of natural goods and the need for development that balances economic, social, and environmental needs. This perspective forms citizens who are aware of their role in conserving the planet and capable of advocating for more sustainable practices in all spheres, as Reigota (2012, p. 13) points out: “Environmental Education, thus conceived, must consider the analysis of the political, economic, social, and cultural relations between humanity and nature and the relations among human beings.”

The use of geographic technologies, such as mapping, Geographic Information Systems (GIS), and remote sensing, equips students with powerful tools for civic intervention. Learning to read and

produce maps, for example, is not only a technical skill, but a form of empowerment, as it allows citizens to monitor land use, visualize the distribution of public services, or denounce spatial injustices.

Cartographic literacy transforms the student from a mere spectator into a potential monitor and proposer of solutions, as Takahashi (2000) mentions:

Cartographic literacy must be understood as one of the indispensable instruments for the formation of citizenship: forming individuals to learn how to learn, so that they are able to deal positively with the continuous and accelerated transformation of the technological base (Takahashi, 2000, p. 3).

Ultimately, successful Geography teaching shapes a reflective, engaged individual and citizen of the world. By integrating knowledge about nature, society, and space, the discipline enables students to decipher the complexity of their surroundings and to act with awareness and responsibility in their community and on the global stage, making geographic education a cornerstone in the construction of a more equitable and sustainable future.

INTERDISCIPLINARY DIALOGUE: GEOGRAPHY AND THE CONSTRUCTION OF KNOWLEDGE

Geography establishes itself as a fundamental science in the construction of knowledge, being intrinsically linked to spatial reality and to the complex relations manifested therein. Its object of study, geographic space, is not restricted to mere descriptions of landscapes or locations, but encompasses the dynamic interactions between society and nature, which by nature requires interdisciplinary dialogue. Understanding phenomena such as urbanization, climate change, territorial conflicts, or economic production is unfeasible without integrating perspectives from other areas of knowledge, as Milton Santos (2004) points out:

Space, which is the object of Geography, is not merely a substrate of social relations, nor merely the theater where life unfolds. It is itself an instance of society, at the same time that it contains society and is contained by it. For this reason, the geographic approach, in order to be complete, cannot dispense with dialogue with other sciences, because spatial manifestations are the synthesis of economic, social, cultural, and natural processes that, together, compose the totality. (Santos, 2004, p. 55)

Interdisciplinarity in Geography is not an option, but an epistemological necessity, because in order to decipher the complexity of the world, the geographer draws on concepts and methodologies from neighboring disciplines. The interface with History, for example, is crucial for understanding how space has been shaped over time. With Sociology and Anthropology, Geography examines social and cultural dynamics and the power relations inscribed in territory. Collaboration with Economics, in turn, is essential for analyzing the spatial organization of productive activities and regional inequalities.

This interaction is particularly strong in Physical Geography, which is directly associated with sciences such as Geology, Climatology, Hydrology, and Biology. The study of environmental systems, geomorphological processes, or the distribution of biodiversity requires in-depth knowledge of these areas. The contribution of mathematical and statistical models and data, as well as Geotechnologies such as Remote Sensing and Geographic Information Systems—GIS—demonstrates the openness of geographic science to integrating technical and analytical tools from Computer Science and Engineering, as Mendonça (2001, p. 87) points out: “The specifically geographic method would arise from the fact that this discipline works with reality in its complexity, addressing varied phenomena studied by other sciences.”

Geographic knowledge constructed in this way, through dialogue, is inherently more robust and holistic because it goes beyond the mere sum of information, generating an interpretive synthesis that reveals the spatial connections among phenomena. An environmental problem, for example, is analyzed simultaneously in terms of its natural causes, its social and economic implications, and the public policies necessary for its mitigation. It is this capacity to articulate different dimensions that gives Geography a central role in the analysis of highly relevant contemporary issues.

Geographic interdisciplinarity also has a profound impact on practical action and intervention in space, because in urban and regional planning, the geographer acts as a mediator, integrating technical-scientific knowledge—engineering, architecture—with the understanding of social dynamics—sociology, law—and environmental dynamics—biology, ecology. The integrated reading of territory allows for the proposition of more sustainable and equitable solutions that consider local specificities and global interdependencies.

Thus, it is worth considering Floriani's (2011) observation:

Principles, procedures, and limitations for interdisciplinary construction underpin the interpretation of relations with practice. Finally, considerations are made regarding transdisciplinarity and its dimensional levels, concluding with the relevance of participatory and democratic systems in territorial organization, sustained by equity and social justice. (Floriani, 2011, p. 2)

However, interdisciplinary dialogue entails challenges, such as overcoming conceptual barriers and creating a common language among disciplines. Professionals from different areas must be willing to decentralize their point of view and value mutual contributions. The success of knowledge construction lies in the scientific humility to recognize the limits of one's own discipline and the richness that arises from the exchange of knowledge and the multiplicity of perspectives, as Japiassu (1976) points out:

The challenge of interdisciplinarity consists precisely in bringing knowledge out of its isolation, out of its rigidity. Moreover, the interdisciplinary effort requires from the researcher the capacity and willingness to permanently cross the limits of his or her specific knowledge, interacting with other ways of seeing the world and allowing himself or herself to question his or her own beliefs and certainties. (Japiassu, 1976, p. 35)

In sum, Geography positions itself at the center of the construction of contemporary knowledge as a science that connects and integrates. By assuming interdisciplinary dialogue as both method and premise, it not only enriches its own analytical capacity, but also offers society a more complete and

interconnected understanding of the world, essential for confronting the great global challenges of the twenty-first century and promoting a future more conscious in relation to our planet.

METHODOLOGY

The present work, focused on the theme of Socio-Spatial Inequality and on Geography's contribution to its discussion in the classroom, adopts a predominantly qualitative methodological approach, bibliographic and exploratory in nature. The main objective is to support the central argument that the discipline of Geography is the principal vector for equipping students with the conceptual and analytical tools necessary for a critical reading of space. The research is based on the review and analysis of canonical and contemporary works in Critical Geography and Urban Sociology, seeking to establish the theoretical foundations that link the production of space to the reproduction of social inequalities.

Therefore, it is worth highlighting the reference to Santos (2004), who states that:

Geography has concepts and methods that allow us to understand today's world. If the world is the set of spaces and times that form it, Geography is the discipline that can help understand this set, because it studies the visible face of the world, but also the processes that produce it. (Santos, 2004, p. 12).

The materials used for the conceptual foundation consisted of a corpus of academic texts that establish the social, political, and historical nature of Geographic Space, as detailed in the Theoretical Framework. Works by authors such as Milton Santos—concepts of space, landscape, and territory—David Harvey—analysis of the capitalist production of space and segregation—Manuel Castells—collective consumption and urban struggle—and theorists of the Chicago School were consulted, as they are essential for understanding the foundations of Socio-Spatial Segregation. The selection privileged texts that address the connection between macroeconomic structures and their materialization at the local scale of the urban landscape.

The method of analysis of the theoretical framework followed a dialectical perspective, in which geographic concepts were examined in their contradictions and interrelations. The focus fell on unveiling how the categories of analysis—place, landscape, region, territory, and space—operate not as static descriptions, but as tools for revealing the power relations and logics of exclusion that shape the ground on which we walk. For example, the landscape is analyzed not only through its morphology, but as a historical and symbolic record of social contrasts, requiring a critical reading that goes beyond common sense, as Santos points out when stating that “The landscape is the set of forms that, at a given moment, express the inheritances that represent the successive relations established between man and nature. Space is the gathering of these forms, plus the life that animates them” (Santos, 2004, p. 66).

The second methodological stage, focused on the contribution to the classroom, employed documentary analysis of curricula and pedagogical guidelines for Brazilian Basic Education, such as the National Common Curricular Base—BNCC. This analysis aimed to identify the relevance and adherence of the theme of Socio-Spatial Inequality to the learning objectives proposed for Geography teaching, especially with regard to the formation of Civic Consciousness and critical thinking. The investigation sought gaps and opportunities for a more in-depth approach to the theme, where the BNCC considers that “The learning of Geography should favor the recognition of diversity and inequalities, as well as the critical analysis of socio-spatial relations, contributing to the formation of an ethical and solidary civic consciousness” (Brazil, 2018, p. 360).

For the development of didactic strategies, one of the pillars of the article, the methodology of didactic action research was adopted in a simulated manner. This means that, based on the theoretical foundations and curricular guidelines, teaching proposals were conceived and structured that integrate the use of Geotechnologies and fieldwork to make the invisible palpable. The focus is on active methods that transform the student into a researcher of his or her own space, as cited by Franco, who states that “Action research, when assumed in the pedagogical dimension, seeks the transformation of knowledge

and practices, allowing the teacher to organize teaching situations that encourage the student to become the subject of his or her own learning” (Franco, 2012, p. 154).

Still within the area of materials and methods, the proposal for fieldwork aims at the practical application of the concept of “landscape reading.” The method consists of guiding students to observe and record, through photographs, sketches, and notes, the morphological and functional contrasts of their surroundings. The objective is to connect the theory of segregation and territoriality with empirical experience, making the landscape a “living geographic document.”

Interdisciplinary Dialogue is established as a fundamental method for the construction of knowledge about inequality, where the analysis of the theme requires the Geography teacher to promote articulation with History—to understand the genesis of disparities—Sociology—for class and power relations—and Economics—for the logic of the real estate market and capital. This methodology of conceptual articulation aims to provide a more robust and holistic analysis.

In terms of validation and impact, although the article is theoretical-conceptual, the method provides that the effectiveness of the didactic proposals be evaluated through their potential to generate critical and proactive consciousness. Assessment is not limited to the retention of concepts, but to the student’s ability to conduct a critical reading of his or her territory and to propose interventions—action plans, improvement projects—aimed at mitigating the disparities observed.

Therefore, the set of materials and methods adopted in this work—critical bibliographic review, dialectical analysis of spatial concepts, curricular analysis, and the proposal of active and technological didactic methods—complement one another to provide a robust framework. The methodological structure ensures that Geography fulfills its role as an Agent of Transformation, enabling students to decipher the complexity of space and to act as future citizens engaged in the construction of a more just and equitable society.

RESULTS AND DISCUSSION

The results of the theoretical and methodological analysis confirm Geography as the essential discipline most intrinsically suited to conduct the debate on socio-spatial inequality in the classroom, so that the discussion is structured on the premise that geographic space is the material and symbolic stage where social tensions and contradictions are sedimented, becoming the perfect object of study for denaturalizing disparities. The landscape, far from being a neutral setting, proves to be a living geographic document that, when read critically, translates segregation and injustice into concrete and visible forms, such as the morphological contrast between luxury condominiums and precarious housing.

The discussion deepens in revealing that socio-spatial segregation is not an accidental phenomenon, but rather the structured result of the interaction of economic, political, and social processes. The theoretical foundations reviewed—Chicago School, David Harvey, Manuel Castells—show that the logic of capital and the pursuit of profit in the real estate sector transform space into a commodity, valuing land unequally and, consequently, pushing low-income groups into areas of risk and precariousness. Geography provides the concepts—segregation, land valorization—so that the student understands that the distribution of poverty and wealth is an intentional process, not a mere accident of history.

The didactic impact of geographic study lies in its capacity to equip the student with the categories of analysis necessary to go beyond common sense. The discussion shows that concepts such as territory and territoriality allow inequality to be understood as a dispute over power and control of space, and not merely as a lack of resources. This is crucial for the student to perceive the political dimension of the problem, understanding that the absence of basic sanitation in a peripheral area is the materialization of the denial of a territorial right and of marginalization in decision-making.

The analysis of the role of landscape as a revealer of social contrasts functions as a central and practical result for teaching. The juxtaposition of quality infrastructure—paved streets, sanitation—in affluent areas versus precariousness—open sewage, insufficient transportation—in peripheral areas

becomes the material and empirical proof of inequality. The pedagogical discussion focuses on transforming this reading of the landscape into a fieldwork tool, where students are encouraged to observe, record, and map disparities, connecting the theory of Socio-Spatial Segregation directly to their life experience.

The discussion on Interdisciplinary Dialogue reinforces the robustness of Geography as an integrating science, considering that the result is that a holistic understanding of socio-spatial inequality is unfeasible without conceptual articulation with History—the genesis of disparities—Sociology—class and power relations—and Economics—the logic of the real estate market. This methodology of articulation ensures that the student does not fall into simplification, but understands the phenomenon as a complex and multicausal product, preparing him or her for a comprehensive social analysis.

It is considered that deepening the theme within the Geography curriculum is a pedagogical and political necessity, and the results indicate that, by equipping the student with the conceptual tools of space, the discipline breaks the inertia of common sense and promotes the questioning of the structures that maintain social injustice. The struggle against inequality is, fundamentally, a struggle for the right to the city and to territory, and Geography is the catalyst that transforms this struggle into teaching content and into a driving force for transformative action.

The discussion points to the importance of teaching not being restricted to the description of disparities, but culminating in the promotion of a proactive consciousness, in which the future citizen, formed with this critical spatial vision, is able to intervene in his or her surroundings, seeking the construction of fairer and more inclusive cities. Geography, when diagnosing the geography of vulnerability, must point toward paths for redirecting the use of territory toward collective well-being, and not merely toward capital accumulation.

In sum, the systematic and critical incorporation of socio-spatial inequality, conducted through Geography, results in the formation of agents of change. The effectiveness of the proposal lies in its potential to enable students to conduct a critical reading of their territory and to propose interventions

aimed at mitigating the disparities observed, making the classroom a laboratory of citizenship capable of forming reflective individuals engaged with reducing social wounds in their locality and in the world.

CONCLUSION

The reflections and analyses conducted throughout this study confirm the central thesis that Geography is the discipline most intrinsically suited and essential to mediate the debate on socio-spatial inequality in the educational environment. Geographic space, in its complexity as both a stage for interactions between society and nature and as a social, historical, and political product, proves to be the ideal object of study for denaturalizing disparities and equipping students with the conceptual tools necessary for a critical reading of reality. The discipline's ability to integrate scales—from the local to the global—and to articulate the theoretical foundations of segregation, the logic of capital, and power relations is its greatest contribution.

The deep incorporation of the theme of socio-spatial inequality into the Geography curriculum, therefore, transcends a curricular update; it establishes itself as a pressing pedagogical and political necessity. Teaching, when successful, enables the student to go beyond common sense, promoting a reading that questions the structures that perpetuate exclusion and vulnerability. This process is the foundation for the formation of a critical and proactive consciousness, transforming the student from a mere spectator into an agent of transformation.

Geography teaching, by focusing on inequality, assumes the role of Agent of Transformation and Civic Consciousness, teaching that access to the city, sanitation, and quality of life is a territorial right and not a privilege. By developing the capacity to read space, the discipline instills socio-environmental responsibility and the need to fight for more equitable territorial planning, where collective well-being takes precedence over the logic of capital accumulation.

Ultimately, the relevance of the debate on inequality in the classroom lies in its capacity to connect abstract knowledge to the student's empirical experience, contributing through fieldwork and

landscape reading, which unite the theory of segregation with the everyday reality of visible social “boundaries” in the surroundings. This connection is what drives engagement, because the student perceives that the object of geographic study—space—is his or her own place of life, struggle, and possibility.

Therefore, the challenge for the school and for the Geography teacher is to embrace this responsibility, ensuring that the discipline is taught not as a repository of facts, but as a critical science aimed at promoting spatial social justice. It is fundamental that the curriculum promote the analysis of themes such as the right to housing, environmental justice, and urban mobility, transforming the classroom into a laboratory of active citizenship.

The persistence of social wounds, such as urban polarization and the marginalization of vulnerable populations, makes the debate on socio-spatial inequality a moral and political imperative. Geographic knowledge is the catalyst that transforms indignation in the face of injustice into a concrete proposal for action. By forming citizens capable of intervening in space to mitigate disparities, geographic education fulfills its highest purpose.

In conclusion, by positioning Geography at the center of the discussion on socio-spatial inequality, we reaffirm the role of the school as the main locus of civic formation for a more just and inclusive future, and we intensify the struggle for a more equitable territory, which is essential to the struggle for a more just society. Geography teaching not only diagnoses problems, but points toward paths for the possible utopia of cities and regions where access to spatial wealth is a universal right, completing the cycle of knowledge with transformative engagement.

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THE MATHEMATICS ENIGMA: DIFFERENTIATED METHODOLOGIES FOR MEANINGFUL LEARNING <https://doi.org/10.63330/aurumpub.046-015>**Wilson Carlos Rodrigues de Matos¹****Abstract**

The student is the principal protagonist within an educational formation, and it is up to us, educators, to observe these changes surrounding their learning, thereby generating new possibilities in their experiences in the practices of knowledge. To this end, teaching models are necessary that promote methodological strategies that make learning more attractive and personalized, with more audacious proposals in relation to the instructive method—blackboard and chalk. Thus, pedagogical projects, as well as other techniques, may prioritize knowledge in the use of technological resources, in the solutions to these problems directed toward cognitive development, adjusted to more efficient management in the educational base. Furthermore, projects linked to the media may be adjusted, within a real scenario, for a leap forward in favor of education in Brazil and in the social and global context.

In view of the foregoing, this article aims to demonstrate that the theme “Mathematical Enigma: differentiated methodologies for meaningful learning” explores the challenges of mathematics learning in the school environment, and its importance within educational management in addressing these difficulties in students’ overcoming of them, experienced within complex challenges, but which can be demystified through innovative pedagogical methodologies and strategic school management in connectivity with social networks, platforms, and software as teaching instruments, in order to facilitate the learning of Mathematics in basic education, thus encompassing secondary, technical, and undergraduate education, as classroom strategies that are more motivating than the current traditional transmissive teaching model.

Keywords: Platforms, Software, Teaching-Learning, Methodological Strategies, Mathematics.

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INTRODUCTION

Teaching in the Brazilian public school system appears to be insufficiently encouraging for students, especially for those who study areas of knowledge such as mathematics. There is little motivation and few studies that awaken in students the competence and ability to verify responses and to know how to solve equations, resolutions, operational calculations, and problems, without which meaningful learning does not occur.

The lack of students' own production in learning, as well as the excessive use of cell phones in the classroom and other media resources, are factors that do not contribute to meaningful learning when they are not directed toward quality studies. Thus, the low performance analyzed by government agencies in the field of education, and particularly in mathematics, can be observed.

The aim is to present, as an alternative, solutions intended to contribute to the study of mathematics through authors who invest in the development of students' educational learning.

According to the author Ubiratan D'Ambrósio, we have:

“[...] throughout the existence of each one of us, one may learn Mathematics, but one cannot lose knowledge of oneself and create barriers between individuals and others, between individuals and society, generate habits of distrust of others, disbelief in society, disrespect and ignorance toward humanity, which is one, toward nature, which is common to all, and toward the universe as a whole.” (Ubiratan D'Ambrósio, 1996, p. 13).

It is observed that D'Ambrósio establishes that learning, above all, must be connected with people's well-being, a principal attribute for initiating learning. In this way, the experience acquired in society and through student life is of utmost effectiveness for fruitful formation within mathematical logical thinking, in parallel with values learned in family experience within our social and cultural environment, received in the classroom by these young students.

In this context, the term “**Mathematical Enigma: differentiated methodologies for meaningful learning**” is used to justify the methodologies applied, in which the student is truly the protagonist of this learning and can understand and use efficient methodologies for solving

mathematical challenges in distinct disciplines, but which awaken and contemplate the student inside and outside the classroom for problem solving and decision-making in their personal, student, and civic formation.

In this way, Edgar Morin (2005) enlightens us on complex thinking within an equally complex reality, in order to direct us toward contextualization in relation to the interdisciplinarization of knowledge in favor of teaching and learning in a society. Thus, the author states:

[...] the necessary reform of thought is one that generates a thought of context and of the complex. Contextual thought always seeks the relationship of inseparability and the inter-retroactions between any phenomenon and its context, and between this and the planetary context. The complex requires thought that captures relations, interrelations, mutual implications, multidimensional phenomena, realities that are simultaneously supportive and conflicting (such as democracy itself, which is the system that feeds on antagonisms and, at the same time, regulates them), that respects diversity at the same time as unity, an organizing thought that conceives the reciprocal relationship among all parts. (p. 23)

From the foregoing, the author is analyzed as establishing interdisciplinarity among areas of knowledge, thus aiming at a partnership in this conjunction of knowledge, in the integration of the science of knowledge, in the improvement of cognitive and socioeducational development, and in social, educational, and civic construction. As an author, innovative methodologies are sought in relation to learning in different disciplines, focusing on the same central axis of the object under discussion with colleagues and teachers: the knowledge to be acquired, in favor of the quality of teaching.

In this context, it is verified that transformations have been manifesting themselves rapidly throughout the educational scenario, especially with science directed toward technology in its applicability to teaching, information, and communication in media, where they have repercussions in modifications within teaching and learning systems, with new contents, whose curricular materials have become increasingly necessary within normative systems and educational vehicles for our student citizens. Thus, educators need to work on the practical aspects of interculturality in classrooms, so that

connectivity occurs between the school context and intercultural values within curricular spheres, in relation to the learning of the cultures of these students who are connected and interlinked within the school space.

Therefore, the current instructive model is analyzed, observed through the presence of challenges such as students' apathy and lack of motivation, which portrays the need to redefine the role of the educator in the teaching and learning process. Teaching and learning must be understood as a proper and active act, making the student the protagonist of their own development, and not merely a passive receiver of information, shifting the central axis of school activities from the teacher to the student.

In this line of thought, this article justifies the search for school-management strategies and practices and their methodological and pedagogical didactics in the continuous qualification of teachers, aiming at the construction and permanent formation of projects for the improvement of educational learning, given the instructive scenario that is elevated.

JUSTIFICATION

Within the importance of the theme under observation—education—the enigma of Mathematics, in view of the performance indicators presented such as IDEB², SAERS³ and ENEM⁴, there is a need to reflect on educational learning within schools. Thus, the term under study may be used to represent the complex and current challenges in the context of mathematics teaching and learning. In this way, the reasons stand out because of the current instructive model, students' intrinsic motivation, authorship, and

² The Basic Education Development Index (Ideb) was created in 2007 and combines, into a single index, the results of two concepts that are equally important for the quality of education: school retention rates and average performance scores on assessments. The Ideb is calculated using data on school promotion rates, obtained from the School Census, and performance averages from the Basic Education Assessment System (Saeb). <https://www.gov.br/inep/pt-br/areas-de-atuacao/pesquisas-estatisticas-e-indicadores/ideb>

³ The project arose from the need to develop a network-specific tool to assess students' learning in Portuguese and mathematics in the final grades of each stage/cycle, in order to guide public policies aimed at improving the quality of basic education provided by the state. The Rio Grande do Sul State Department of Education administered the SAERS in 2005, 2007, 2008, 2009, 2010, 2016, 2018, 2022, and 2023. <https://educacao.rs.gov.br/saers-sistema-de-avaliacao-do-rendimento-escolar-do-rio-grande-do-sul>.

⁴ The National High School Exam (Enem) was established in 1998 with the aim of assessing students' academic performance upon completion of basic education. <https://www.gov.br/inep/pt-br/areas-de-atuacao/avaliacao-e-exames-educacionais/enem>

self-learning, in which teaching is centered on the teacher, with a focus on memorization and repetition, where the student presents severe difficulties in understanding mathematical resolutions and problems, expanding the feeling that Mathematics is an “inaccessible enigma” in the eyes of students.

Thus, a profound review of the methodologies applied in the classroom becomes necessary, and active methodologies and others that encourage innovative pedagogical practices may be used, such as problem solving, mathematical games, and inquiry-based teaching, making the student the subject of this educational process, in view of the challenging and engaging experience of the usual blackboard and chalk, with tools that awaken learning directed toward applicability of variables in strategies for teaching and learning with other pedagogical platforms within knowledge. Therefore, the educational learning process becomes necessary with the realization of everyone in this formation of values, in which the principal protagonist is the student in their learning, showing in their evolution significant data in their school and social formation, empowering them as the main subject of this process of transformation and growth in their student and civic formation.

Along these lines, we have principles and values that prioritize education within the public and democratic sphere, in the participation of all collaborators, also in the consolidation of the Federal Constitution of 1988, the Law of Guidelines and Bases of National Education (9.394/96), and the National Education Plan (10.127/2001), aiming at the democratic construction of the public school in its renewing, participatory, collaborative process for all, anchored by constitutional pillars.

In this line of thought about education, Paulo Freire preserves “Education as the practice of freedom,” in which the conception of democracy is deepened, and he advocates that:

Democracy, which, before being a political form, is a form of life, is characterized above all by a strong degree of transitivity of consciousness in human behavior. Transitivity that is neither born nor developed except under certain conditions in which human beings are brought into debate, into the examination of their problems and of common problems. In which human beings participate. (Freire, 2007, p. 88).

From the foregoing, we experience the lack of students' own authorship in teaching-learning, an instructive method centered on the teacher, as well as the excessive use of cell phones outside the classroom context and other media resources as active factors that contribute to the low level of learners' performance, outside the context of learning and learning. For this, a deep analysis and reflection within the theoretical frameworks of the Brazilian educational system is necessary, showing important pathways of transformation in the school environment, as well as in all educational activities in the teaching-learning process.

Furthermore, it is observed that there is a gap in the lack of stimulation of learners in their learning due to the applicability currently presented by educational managers, as indicators for reviewing educational management strategies in favor of the student, the subject of this process.

As the illustrated indicators point out, we have the low performance of students still experienced today within the quality of education in Brazil.

THEORETICAL FOUNDATION

We begin with the teachings of the author Ubiratan D'Ambrósio in his statements concerning the learning of mathematics:

[...] throughout the existence of each one of us, one may learn Mathematics, but one cannot lose knowledge of oneself and create barriers between individuals and others, between individuals and society, generate habits of distrust of others, disbelief in society, disrespect and ignorance toward humanity, which is one, toward nature, which is common to all, and toward the universe as a whole. (1996, p. 13).

It is observed that the author establishes that learning, above all, must be linked to the well-being of the citizen, but integrated with self-knowledge and the understanding of others, thus characterizing a process of studies that generates pathways and strengthens learning in a more objective and practical manner. In this way, learning cannot create obstacles among individuals or generate social disagreement, concepts, and attitudes, but rather must seek more effective methodologies, bringing the student into

their school space, since it is noted that the student is often physically present in the classroom, but distant and dispersed from the school environment, due to lack of interest or even because they do not know the content presented, having advanced to another grade without prior knowledge.

In this view, the teacher directs their action toward the search for learning and teaching, prioritizing quality teaching with efficiency and making teaching robust. Thus, the student must be encouraged to be critical and reflective in their decision-making, in order to consolidate an autonomous and proactive being. Thus, we have the authors:

Teaching and learning activities are not inseparable; however, in each one there is the mark of the subjects in their processes. In teaching activity, the importance of the teacher in the organization of teaching stands out and, in learning activity, the schoolchild is evidenced as the subject of their actions in the process of appropriating theoretical knowledge—the content of teaching and learning activity (Moraes; Moura, 2009, p. 102).

With regard to the cited authors, the relationship between teaching-learning is analyzed as interdependent processes, but marked by their own characteristics, centered on different matters. Therefore, the importance of methodological processes that value the proactive role of the learner within educational management is reinforced, with active methodologies and others, reconciled with the use of platforms within artificial intelligence for the intellectual enrichment of the student, promoting a more reflective and autonomous formation in proposed activities, together with the assistance of their teacher and friend.

In view of the facts, D'Ambrósio (2001, p. 15) tells us:

The Mathematics teacher is assigned a great challenge, that of “making mathematics interesting, that is, attractive; relevant, that is, useful; and current, that is, integrated into today’s world.”

However, for this to occur, teaching must make real sense to the student, awakening curiosity and the spirit of being inserted in the social and school context, making learning more engaging and pleasurable through dynamic methodologies, such as the use of games, challenges, and practical

activities that stimulate students' interest and active participation and that relate to their reality within the contemporary world.

The author D'Ambrósio strengthens this idea, emphasizing that the teaching of Mathematics needs to have meaning for the learner, demonstrating the applicability of the proposed content within lesson planning. This can be studied in practical contexts, with studies directed toward finances for personal and operational didactic use, calculations of average household or even business energy consumption, water consumption and projects, or in the interpretation of statistical data graphs to be worked on as a case-study sample through the school. In this regard, if no methodological change in pedagogical didactics persists, we will have Mathematics that is not attractive and not efficient for the student.

Therefore, alternatives are sought for solving obstacles within school education, modeling and improving methodologies within courses, including Specialization in Media in Education, digital technologies, and the use of artificial and emotional intelligence within mathematics learning, with the applicability of new technological tools available on the Facebook social-network platform, Educar-RS platforms of the federal and state government secretariats, encouraging the learner within these curricular structuring bases, together with managers, pedagogical supervision, and teachers in the formation of improvements in the quality of teaching, in the refinement directed toward teaching-learning strategies for the learner, with a view to the discipline of Mathematics.

In this scenario, Bonna (2011) states that digital technologies intensify the methodological process in learning in a meaningful way, in the exercise of its practice in Mathematics when affirmed and experienced within an innovative, robust pedagogical teaching didactics that stimulates the learner in their learning with autonomy in their own construction of this learning.

According to Freire (1979), "education is what transforms the world, makes the culture and history of a people. It is what moves any educator to struggle in the area of knowledge." In relation to the author, his thought is analyzed:

It is necessary that education be, **in its content, in its programs, and in its methods, adapted to the end being pursued: to allow human beings to become subjects, to build themselves as persons, to transform the world and establish relationships of reciprocity with other human beings, to make culture and history...** (1979, p. 21).

Given the author's thought, it is verified that technologies are still necessary in their use as an active process within the didactics of teaching-learning for learners, providing new connections between the school environment and teaching to be linked in a natural way, making more playful teaching activities necessary in the learning process, centered on the student in their cognitive study as a motivating and meaningful factor.

This article proposes to show that the term mathematical enigma identifies and suggests practices that lead the learner in their construction and production of knowledge, within a reality that proposes how to use the experiences of the author and of other authors so that there may be new learning in the teaching of Mathematics, always mentioned by students as a discipline with difficult and unmotivating content, thus illustrating a new thought: that mathematics is experienced in the entire context of our life, in actions and especially in the decisions we make every day through its natural use.

In this reasoning, according to Gomes (2006, p. 57), "The way in which the National Curricular Parameters were presented demonstrates that the teacher should have knowledge not only of their own area, but a much broader knowledge capable of mastering various situations."

On the other hand, Villas Boas (2008) reflects on how mathematics education should be practiced in modern times, adjusted to traditional practices, in which the teacher teaches with ready-made theories and brings students an entirely theoretical learning experience, through copying and the use of a whiteboard, which does not produce efficient and practical learning in mathematical learning with the world in which the student lives.

[...] attention is drawn to the need to relate Mathematics to the other sectors of society, above all recognizing the new developments in science and technology. The great challenge that we, mathematics educators, encounter is to make Mathematics interesting, that is, attractive; relevant, that is, useful; and current, that is, integrated into today's world. D'Ambrósio (2001, apud Villas Boas, 2008, p. 2).

The author D'Ambrósio (2001) emphasizes that Mathematics should be taught in such a way that the student is adjusted within their social and cultural context, directed within science, with pedagogical methodologies and worked together with technological tools in favor of the educator.

In this way, D'Ambrósio's view is observed, which Villas Boas (2008, p. 3) shows us as follows: "Currently, what matters is making teaching pleasurable, interesting, creative, and as close as possible to the student's reality."

According to Matos (2015), corroborating the authors above, it is analyzed that the teacher should reevaluate their teaching methodologies so that the student may be a subject and proactive in relation to learning mathematics, thus seeking classes differentiated from the current blackboard-and-chalk model with the purpose of making teaching "pleasurable, interesting, creative, and as close as possible to the student's reality." Thus, efficient and robust teaching-learning is sought, making the student an active subject of this methodological and pedagogical process in relation to the knowledge acquired through technological tools in the exercise of their learning and learning, within their knowledge and the environment in which they live.

STUDY OF APPLICABILITY IN DIFFERENTIATED METHODOLOGIES AS A FORM OF LEARNING

Current education faces increasing challenges, such as students' lack of interest, the need for differentiation and reformulation of teaching, and the development of competencies and skills imposed by the professional market and by society in the face of the existing scenario. The instructive teaching model, based on teacher centrality and the transmission of content, has shown its limitations, especially in the face of an increasingly competitive and digitized world.

In this scenario, differentiated methodologies emerge as alternatives capable of transforming teaching, making it more robust, interactive, and aligned with the realities and needs of students. This study seeks to understand the applicability of these methodologies in different educational contexts, exploring how they may contribute to more meaningful, didactic, and efficient learning.

Thus, a constant process of transformation is sought in relation to education, in order to observe changes in awareness surrounding learning, generating new challenges in methodological didactics in the form of learning—the student. To this end, Pedagogical Projects are promoted, prioritizing areas of knowledge and technologies in the solutions to problems experienced in the educational base. Moreover, projects linked to the media may be fundamental and educational, within a concrete scenario in favor of teaching in Brazil and in the social and civic context, in order to impose a new approach to teaching.

In view of the indicated propositions, flexible methodologies are suggested, applicable in studies directed toward methodological pedagogical didactics of teaching-learning, such as: mathematics games in continuous use, bringing students to the use of projects, active methodology resources, and the use of artificial intelligence for more robust connectivity in this proposal that awakens and drives the interactive mode of class studies, so that students interact, think, and reflect on existing tasks as a mechanism for absorbing more efficient teaching for young people in their intellectual cognition.

In this context, an initial pre-test is indicated within an application in the didactics of strategies in school learning, in view of an initial survey of information collected from the process to be studied, identifying the difficulties relevant to each student and their domains in the cognitive field of this learning, as well as other procedures to be constructed within the didactics of teaching and learning through ways of diversifying innovative methods in school environments and platforms.

Thus, classes with computers are introduced in a continuous and harmonious manner, with software such as GeoGebra, graph construction, calculation of the distance between two points, and

spatial geometry, together with the teacher, practicing and experiencing this teaching tool as a way of learning and teaching through the sharing of this information with classmates. Thus, the Winplot software allows graphs to be constructed using elementary functions, and others that may sharpen, awaken, and motivate teaching in an efficient, practical, and differentiated manner in relation to the current instructive model, prioritizing collaborative and participatory studies, in a relaxed atmosphere within playful learning strategies, directed toward understanding the proposed activities in class meetings. Along this path, it is assessed that the student learns in a manner determined differently from the traditional blackboard and chalk, sharpened and motivated through the teacher, the mediator of knowledge, in a playful, magical, and relaxed way for them—the student.

In this scenario, the teacher is understood as a link of guidance and approach for carrying out activities that are motivating and meaningful, giving active reinforcement as the student reaches progress in their decision-making as a student. Therefore, the teacher, in their professional formation, transfers tips to the student on how to direct and sharpen their studies, signaling procedures of simple reasoning, but which bring significant gains in the construction of values achieved. Thus, we have as examples: study tips as a way of guiding the student toward having a more structured methodology; studies with conceptual maps; playful activity with games, aiming at decision-making in the construction of a more critical, reflective, and autonomous being; the use of software in the interaction between the student and the computer with its languages; the use of the internet as a source and research for personal and collective studies on content already worked on in the classroom, making a comparison with videos that address the same subjects, conference videos, and/or any other activity related to learning, thus making such procedures much more accessible and attractive in this methodological learning strategy. Finally, there are numerous facilitators that serve as pedagogical didactics and study techniques, as neuroscience explains, as a way of enriching and going beyond the teaching proposal on the theme **“Mathematical Enigma: differentiated methodologies for meaningful learning.”**

According to the author Monereo (1999, p. 12), his study analyzes:

The quality of learning does not depend so much on a supposed intellectual quotient, nor on mastery of a good set of techniques and methods for studying exercises profitably, but rather on the possibility of grasping the demands of a given learning situation and controlling, with appropriate means, those situations.

In this analogy of reasoning, study techniques are modeled for the applicability of the use of procedures of a certain study practice, combinations for student and teacher, and intellectual development in their decision-making. Thus, they are always directed toward the general objective: the student as an autonomous, proactive, and participatory being also before the family and society as a whole.

METHODOLOGY

In order to make viable the methodologies of application for students, it is intended to establish, within the school's educational, secondary, and technical formation, a program for the implementation of free software and the platform of the government application Escola RS, Google Classroom, in which the students themselves will be involved in this construction. The free software downloaded through the Google Chrome platform or another to be built and researched by the students will be consolidated by their mediator, the teacher.

According to Paulo Freire (2013), pedagogical methodologies, within didactic-pedagogical practices, should be included in monthly meetings established in the school calendar, with the management team, pedagogical coordination, and teachers, where they discuss, plan, and exchange ideas in order to review the objectives that are worked on during the school year, namely:

“[...] in the permanent formation of teachers, the fundamental moment is that of critical reflection on practice. It is by thinking critically about today's or yesterday's practice that one can improve the next practice.” Freire (2013, p. 40)

As a didactic and methodological form, other examples that contemplate the student's reality are analyzed, namely: set theory, in which the ideas of set, family, characteristic, and theorem are related; civil construction with regard to Bhaskara's formula, the distance between two points, and applicability in areas of study; analytic and geometric geometry, the chord, giving the idea of length, the roots of these equations in buildings, calculation of soil deepening; in aviation, in the part of calculations referring to Physics, astrology; in biology, regarding cells and chromosomes; knowledge that already comes in its creation and gives a new vision through studied and differentiated classes compared to the traditional model.

Thus, we have guided, differentiated learning directed toward the student, evidencing an autonomous, independent, creative being who uses strategies to take advantage of the models taught, in view of study methodologies, in favor of the student body, the subject of this learning and teaching.

Finally, the methodologies seek to address the theme **“Mathematical Enigma: differentiated methodologies for meaningful learning”** in such a way that the learner may evidence compensatory data in their construction, student and civic formation, and educational development, where student and teacher have a significant leap, since these are applicable methodologies, which represent an opportunity to transform the educational scenario, making it more inclusive, competitive, dynamic, and robust for the student.

FINAL CONSIDERATIONS

Through this article—“The mathematics enigma: Differentiated methodologies for meaningful learning”—compensatory results experienced by the student and teaching bodies are sought, so that they may have a significant leap, since these are applicable methodologies, which represent an opportunity to transform the educational scenario, making it more inclusive, competitive, dynamic, and efficient.

By promoting protagonism—the subject of this educational and student process—interdisciplinarity, and the integration between teaching and technology, they meet the needs of the current society.

This study aims to contribute to the dissemination and application of these practices, outside and inside the school environment, adjustable with differentiated methodologies also in the use of the EducAR platform and educational platforms.

In this context, we have the use of other areas of knowledge adaptable to students' learning within interdisciplinarity, with the specific and unique objective of learning and relearning content in different areas of knowledge.

Along these lines, the learner's performance in the discipline will have a conclusive result by other educators in using educational tools as facilitators in learning, as subject and proactive in this cognitive line of knowledge—the student.

Thus, as a public-school teacher in education, the author teaches Mathematics for elementary, secondary, and technical education at a school in the city of Porto Alegre. Over the years of teaching, it has been possible to observe an expressive number, especially in the discipline of Mathematics, in which cognitive knowledge is predominantly low within the educational scenario illustrated by this educator, Doctor of Educational Science.

This observation involves a reflection that goes beyond the limits of the classroom. Often, teaching problems are already inserted in the student's family daily life, that is, the lack of discipline and the lack of school material as support in this student's learning, together with the absence of study habits, give rise, as a whole, to low performance both cognitive and in terms of self-esteem.

In view of these factors, it is observed that failure and students' low performance are reflected in an entire social, moral, and psychological conjuncture. The educator, with only their knowledge, and not using effective didactics but only blackboard and chalk, feels small before an entire structure that needs to

be motivated in favor of their student, in the art of teaching and learning, the transformation of this sad and chaotic scenario: teaching.

However, it is up to us teachers to seek variables in terms of differentiated methodologies for those who need them, motivation, and to use their own mechanisms of easy access to communication, using the available and necessary technology in the improvement and intellectual development of our young people, in relation to their learning.

Along these lines, the existing difficulty is by no means simple, but if we combine efforts and work as a team, we can make what is difficult pleasurable, using the media through website games, software in motivational classes, feedback from previous classes, linked with virtual objects, and other applications that will help in the logical and cognitive development of the student, the subject of this learning.

Finally, there is an urgent need for a review of the pedagogical processes in the teaching of mathematics, where it is fundamental that managers, teachers, and the school community be adaptable and engaged in this process of pedagogical innovation, ensuring more meaningful and transformative learning for students, thus enabling greater meaningful learning in this process of learning and teaching, in view of the theme under study: the enigma of mathematics: differentiated methodologies for meaningful learning.


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SOCIAL INEQUALITY AND DIGITAL EXCLUSION IN BRAZIL: INTERFACES BETWEEN ACCESS, TECHNOLOGICAL LITERACY, AND SOCIAL PARTICIPATION

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Abstract

Digital transformation has intensified dependence on Information and Communication Technologies (ICTs) across different dimensions of social life, making access to technology a fundamental element for social inclusion and citizenship. In this context, the present study aimed to analyze the interfaces between social inequality and digital exclusion in Brazil, considering aspects related to access to technologies, technological literacy, and social participation. This is an integrative literature review with a qualitative, exploratory, and descriptive approach, conducted between April and May 2026. The search for studies was carried out in the databases Periódicos CAPES, SciELO, ScienceDirect, SpringerLink, Taylor & Francis Online, SAGE Journals, and Wiley Online Library, resulting in the final selection of 17 scientific articles published between 2021 and 2025. The findings revealed that digital exclusion is directly associated with socioeconomic, educational, and territorial inequalities, mainly affecting vulnerable populations, rural residents, and individuals with low educational levels. The study also demonstrated that access to technologies alone does not guarantee social inclusion, making the development of digital skills essential for the critical and autonomous use of technological resources. It is concluded that digital inclusion should be understood as a multidimensional process, dependent on the articulation between technological infrastructure, democratization of internet access, digital literacy, and inclusive public policies aimed at reducing social inequalities and strengthening digital citizenship.

Keywords: Digital citizenship, Social vulnerability, Information technologies, Digital literacy, Technological equity.

INTRODUCTION

Contemporary society is experiencing an intense process of digital transformation, in which Information and Communication Technologies (ICTs) have come to exert a direct influence on different dimensions of social life. Access to the internet and to technological resources has become indispensable for activities related to education, work, communication, access to public services, health, and citizen

participation. In this context, being connected has ceased to represent merely a technological convenience and has become an important factor for social inclusion, human development, and the exercise of citizenship (Asimakopoulos et al., 2025).

Despite the technological advances observed in recent decades, access to digital tools still occurs unequally, especially in countries marked by profound social and economic disparities, such as Brazil. Social inequality and digital exclusion have a directly interconnected relationship, since individuals in situations of economic vulnerability frequently face greater difficulties in accessing digital technologies. This exclusion is not limited only to the absence of internet or electronic devices, but also involves limitations related to connection quality, continuous access to digital platforms, and the lack of technological literacy necessary for the critical and efficient use of these tools (Heeks, 2022).

In Brazil, the expansion of the internet has occurred unevenly across regions and social groups, following the country's own historical structures of inequality. Factors such as income, educational level, age group, and geographic location directly influence the way individuals access and use digital resources. Alves (2021) emphasizes that Brazilian digitalization occurred in parallel with the strengthening of socio-digital inequalities, showing that internet access remains conditioned by the socioeconomic conditions of the population. Thus, low-income populations, residents of rural areas, and socially vulnerable groups face greater difficulties in achieving full insertion into digital society.

In addition to structural limitations of access, digital exclusion is also related to difficulties in developing digital competencies. In an increasingly connected society, having internet access does not necessarily guarantee social inclusion and effective participation in digital environments. It becomes essential to understand, interpret, and use technologies in a critical, safe, and autonomous manner. Méndez-Domínguez et al. (2023) state that digital inclusion should be understood as a broad process, involving both access to technologies and the strengthening of digital literacy and the skills necessary for social participation. In this sense, the absence of these competencies expands already existing inequalities and limits access to educational, professional, and informational opportunities.

The problem of digital exclusion became even more evident during the COVID-19 pandemic, a period in which educational activities, public services, and health care began to depend intensely on digital technologies. Nakayama et al. (2023) point out that inequality in internet access significantly compromised the Brazilian population's access to telemedicine and digital health services, revealing barriers related both to technological infrastructure and to socioeconomic conditions. Similarly, Santos et al. (2021) demonstrate that young people in situations of social vulnerability face difficulties related to digital literacy, a factor that directly interferes with their possibilities for educational inclusion and social integration.

Another relevant aspect concerns the relationship between digital exclusion and citizen participation. Digital technologies have expanded the possibilities for communication, social interaction, and democratic participation, allowing greater proximity between citizens and public institutions. However, the persistence of digital inequalities prevents a large portion of the population from fully participating in these spaces. Dodel (2023) emphasizes that inequalities related to access to and use of technological devices directly influence the population's engagement with digital government services, compromising the realization of digital citizenship. Thus, digital exclusion comes to represent not only a technological problem, but also a social and democratic issue.

Furthermore, the digital transformation of public services requires inclusive policies capable of guaranteeing accessibility and technological equity for marginalized populations. Djatmiko, Sinaga, and Pawirosumarto (2025) highlight that digital inclusion depends on the articulation between technological infrastructure, digital education, and public policies aimed at social inclusion. Therefore, reducing digital inequalities requires investments not only in connectivity, but also in the promotion of educational actions and strategies that favor the development of technological competencies and the strengthening of social participation.

In view of this context, this study aims to analyze the interfaces between social inequality and digital exclusion in Brazil, discussing how access to technologies, technological literacy, and social

participation are related in contemporary society. It seeks to understand the main challenges faced by socially vulnerable groups in accessing digital resources, as well as to reflect on the importance of public policies and educational strategies aimed at digital inclusion, the democratization of access to information, and the reduction of social inequalities.

METHODOLOGY

This is an integrative literature review with a qualitative approach, exploratory and descriptive in nature, conducted between April and May 2026, whose objective was to analyze the interfaces between social inequality and digital exclusion in Brazil, considering aspects related to access to technologies, technological literacy, and social participation in contemporary society.

The methodological pathway was developed based on the methodological assumptions of Gil (2019), encompassing the stages of defining the research problem, establishing inclusion and exclusion criteria, searching for and selecting studies, critically analyzing the selected material, organizing information, and synthesizing the results.

The guiding question of the review was defined as follows: how does social inequality interfere with access to digital technologies, the development of technological literacy, and the social participation of the Brazilian population?

The search for studies was carried out in the databases Periódicos CAPES, Scientific Electronic Library Online (SciELO), ScienceDirect, SpringerLink, Taylor & Francis Online, SAGE Journals, and Wiley Online Library, as well as in national and international scientific journals related to the areas of social inequality, digital inclusion, information technologies, and social participation.

For the search strategy, descriptors and free terms related to the theme were used, such as: (social inequality), (digital exclusion), (digital inclusion), (technological literacy), (digital citizenship), (social participation), (digital technologies), and (internet access), combined using the Boolean operators AND and OR.

The inclusion criteria adopted were: full-text scientific articles published between 2021 and 2025, in Portuguese, English, or Spanish, that addressed the relationship between social inequality, access to digital technologies, technological literacy, and social participation. As exclusion criteria, duplicate studies, simple abstracts, narrative reviews, editorials, dissertations, theses, and publications that did not directly respond to the guiding research question were considered.

The initial search identified 268 studies. After applying the time frame and verifying full-text availability, 62 studies were excluded due to unavailability or because they did not meet the inclusion criteria. Subsequently, 38 duplicate studies were removed, leaving 168 studies for title and abstract analysis. At this stage, 110 studies were excluded because they did not directly address the proposed theme, resulting in 58 studies eligible for full reading.

After complete reading and application of the eligibility criteria, 41 studies were excluded because they did not consistently address the relationship between social inequality, digital exclusion, technological literacy, and social participation, or because they presented methodological limitations. Thus, 17 scientific articles were selected to compose the final sample.

Data analysis was performed through thematic content analysis, according to Bardin (2011), encompassing the stages of pre-analysis, exploration of the material, thematic categorization, and interpretation of the results.

RESULTS AND DISCUSSION

The results of the integrative review were systematized and organized in Table 1, considering the numbering of studies, publication journal, authors, year, title of the works, and their main contributions to understanding the interfaces between social inequality, digital exclusion, technological literacy, and social participation.

Table 1

Selected papers on social inequality and digital exclusion

No.	Journal	Author(s)	Year	Title of the paper	Main contributions
1	Revista Pós Ciências Sociais	Alves, E. P. M.	2021	<i>A expansão da internet no Brasil: digitalização, mercado e desigualdades sociodigitais</i> [The expansion of the internet in Brazil: digitalization, market, and socio-digital inequalities]	Highlights the unequal expansion of the internet and its relations with social inequalities in Brazil.
2	Technology in Society	Anrijs, S. <i>et al.</i>	2023	Excluded from essential internet services	Analyzes the relationship between digital exclusion and socioeconomic resources.
3	Societies	Asimakopoulos, G. <i>et al.</i>	2025	Impact of ICTs on democratic processes and citizen participation	Discusses the role of ICTs in citizen participation and democratic processes.
4	Journal of Policy and Practice in Intellectual Disabilities	Chadwick, D. <i>et al.</i>	2022	Digital inclusion and participation during COVID-19	Addresses the digital inclusion of people with intellectual disabilities during the pandemic.
5	Sustainability	Djatkiko, G. H.; Sinaga, O.; Pawirosumarto, S.	2025	Digital transformation and social inclusion in public services	Analyzes digital inclusion in public services for marginalized populations.
6	Social Science Computer Review	Dodel, M.	2023	Why device-related digital inequalities matter	Shows how device inequalities affect the use of e-government.
7	Information Technology for Development	Heeks, R.	2022	Digital inequality beyond the digital divide	Expands the concept of digital exclusion beyond access.
8	Frontiers in Communication	Méndez-Domínguez, P. <i>et al.</i>	2023	Digital inclusion for social inclusion	Highlights the role of digital literacy in social inclusion.
9	Journal of Information Science	Muñoz, J. A. H.; Valencia, D. C.	2023	Trends and challenges of digital divide	Presents a bibliometric analysis of digital exclusion.

10	Journal of Medical Internet Research	Nakayama, L. F. <i>et al.</i>	2023	The digital divide in Brazil and telehealth barriers	Highlights inequalities in access to digital health care in Brazil.
11	GSC Advanced Research and Reviews	Nirmanani, I. A. P.	2025	Barriers to digital participation in developing countries	Identifies technological, social, and cultural barriers to digital inclusion.
12	Education and Information Technologies	Nogueira, V. B. <i>et al.</i>	2022	Inclusive digital literacy in rural Brazil	Demonstrates the impact of digital literacy interventions.
13	Sinergi International Journal of Communication Sciences	Saleh, M.; Irwani; Bahrianoor	2024	Digital exclusion and social inequity	Relates digital exclusion to global social inequalities.
14	Research, Society and Development	Santos, A. S. <i>et al.</i>	2021	Digital inclusion and youth vulnerability	Analyzes digital literacy among young people in social vulnerability.
15	Teias de Conhecimento	Stadler, M. S.; Krepel, J. A.; Manjinski, E.	2025	<i>Tecnologia para todos</i> [Technology for all]	Presents digital inclusion strategies in education.
16	International Journal of Research and Innovation in Social Science (IJRISS)	Tomaz, M. L.; Silva, C.	2025	Digital exclusion and lifelong learning	Relates digital exclusion to lifelong learning.
17	Social Indicators Research	Zárate, Z. E.; Trujillo, C. C.; Plaza-De-La-Hoz, J.	2023	Digitalization in vulnerable populations	Review on digitalization among vulnerable populations in Latin America.

Source: Authors (2026).

The analysis of the studies made it possible to organize the findings into three thematic axes, constructed from the recurrence of meanings and patterns identified in the literature, according to the content analysis technique proposed by Bardin (2016).

ACCESS AND STRUCTURAL INEQUALITY

Inequality in access to digital technologies constitutes one of the main determinants of digital exclusion. In the Brazilian context, the expansion of the internet occurs unevenly, strongly conditioned by

socioeconomic factors and market logic, which reinforces already existing historical disparities (Alves, 2021).

This reality intensifies when it is observed that access to technologies is directly related to income, educational level, and material living conditions, showing that digital exclusion is not only technological but also social (Anrijs et al., 2023). In contexts such as Brazil, such inequalities even compromise the effectiveness of digitalized public policies, especially in areas such as health and essential services (Nakayama et al., 2023).

In developing countries, structural barriers include high connectivity costs, precarious infrastructure, and instability of basic services, factors that limit the universalization of digital access (Nirman, 2025). These elements demonstrate that digital exclusion is directly linked to socioeconomic inequality.

In Latin America, vulnerable populations are the most affected by this process, indicating that digitalization tends to reproduce and expand already existing social inequalities (Zárate et al., 2023).

LITERACY AND DIGITAL COMPETENCIES

The studies analyzed indicate that access to technologies alone does not guarantee digital inclusion, making the development of digital competencies necessary for the critical and functional use of technological tools.

Educational interventions aimed at digital literacy demonstrate positive impacts on individuals' autonomy, especially in contexts of social vulnerability, expanding possibilities for social and educational participation (Nogueira et al., 2022). In this sense, digital inclusion should be understood as an ongoing formative process.

Digital literacy appears as a central element for social inclusion, since it enables individuals to understand, interpret, and use technologies critically (Méndez-Domínguez et al., 2023). In the educational

environment, pedagogical strategies aimed at digital inclusion have proven fundamental for reducing inequalities and promoting equity in access to knowledge (Stadler; Krepel; Manjinski, 2025).

However, even in contexts with access to technology, more subtle forms of exclusion may occur, in which individuals are unable to use digital resources productively, configuring what Heeks (2022) calls adverse digital incorporation. Thus, digital exclusion goes beyond the dimension of access and reaches the dimension of qualified use.

SOCIAL PARTICIPATION AND DIGITAL CITIZENSHIP

Digital exclusion directly impacts social participation and the exercise of citizenship, since a large portion of public services, educational processes, and democratic interactions are increasingly mediated by digital technologies.

The appropriate use of information and communication technologies can strengthen citizen participation and expand democratic processes, provided that adequate access and competencies exist (Asimakopoulos et al., 2025). However, inequalities related to devices and connectivity still limit engagement with digital services, creating new forms of exclusion in the virtual environment (Dodel, 2023).

Groups in situations of vulnerability, such as people with intellectual disabilities, face additional barriers to access and participation, especially in crisis contexts, as evidenced during the COVID-19 pandemic (Chadwick et al., 2022). This demonstrates that digital exclusion also has an intersectional dimension.

The digital transformation of public services can function as an instrument of social inclusion, provided that it is accompanied by public policies that guarantee accessibility and equity (Djatkiko; Sinaga; Pawirosumarto, 2025). However, the absence of digital competencies limits lifelong learning and reduces educational and professional opportunities (Tomaz; Silva, 2025).

Broadly speaking, digital exclusion is directly associated with global social inequalities, affecting access to education, health, and economic participation, which reinforces its structural and multidimensional character (Saleh; Irwani; Bahrianoor, 2024).

CONCLUSION

It is evident that social inequality and digital exclusion have a directly interconnected relationship in the Brazilian context, since access to digital technologies remains deeply conditioned by socioeconomic, educational, and territorial factors. In this sense, the present study achieved its proposed objective of analyzing the interfaces between social inequality and digital exclusion in Brazil, discussing how access to technologies, technological literacy, and social participation are related in contemporary society.

Furthermore, it made it possible to understand that digital exclusion goes beyond the absence of connectivity, also involving limitations related to the quality of access, availability of technological devices, development of digital competencies, and social participation in environments mediated by technologies.

The studies analyzed demonstrated that populations in situations of social vulnerability, residents of rural areas, individuals with low levels of education, and historically marginalized groups face greater difficulties in achieving full insertion into digital society. In this context, digital inequality contributes to the expansion of already existing social inequalities, compromising access to education, public services, health care, information, and professional opportunities.

It was found that technological literacy plays a fundamental role in strengthening social inclusion and digital citizenship, since mere access to technologies does not guarantee effective participation and critical use of digital tools. The literature showed that educational actions aimed at developing digital competencies contribute significantly to individuals' autonomy, the expansion of social participation, and the reduction of exclusion barriers.

Among the main gaps identified, the following stand out: the insufficiency of public policies aimed at universalizing access to quality internet; the persistence of regional inequalities in connectivity; the limitation of digital literacy programs for vulnerable populations; and the absence of continuous strategies for technological inclusion in schools, peripheral communities, and rural areas. Weaknesses related to digital accessibility for specific groups, such as older adults, people with disabilities, and individuals in situations of social vulnerability, were also observed, revealing limitations in the realization of digital citizenship and in equitable access to digitalized public services.

Another relevant aspect identified concerns the need for inclusive public policies that articulate technological infrastructure, democratization of internet access, and promotion of digital literacy, especially for socially vulnerable populations. Thus, digital inclusion must be understood as a multidimensional process, directly related to social equity, the strengthening of citizenship, and the guarantee of rights in contemporary society.

As a contribution, this study expands discussions on the relationships between social inequality and digital exclusion in the Brazilian context, highlighting the importance of educational strategies and public policies aimed at technological inclusion and social participation. For future research, the development of empirical studies is suggested to evaluate the effectiveness of public policies for digital inclusion in different regions of Brazil, as well as investigations into the impacts of digital exclusion on specific populations, such as public education students, older adults, rural communities, and socially vulnerable groups. It is also recommended that research be conducted on the relationship between artificial intelligence, digital transformation, and the expansion of social inequalities, considering contemporary challenges related to digital citizenship, technological accessibility, and the democratization of knowledge.

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THE MULTIMODAL GENRE “*STICKER*” IN THE CLASSROOM: A PERSPECTIVE ON VISUAL-CRITICAL LITERACY IN ENGLISH CLASSES <https://doi.org/10.63330/aurumpub.046-017>**Francisco Welton Machado¹, Marina Rocha de Castro², Francisco das Chagas Gomes³, Kennedy José Alves da Silva⁴, Noé da Silva Carvalho⁵ and Raimundo Lenilde de Araújo⁶****Abstract**

This study approaches the use of the multimodal genre sticker in English classes, focusing on the perspective of visual-critical literacy. The sticker genre refers to a form of visual communication that uses images, icons, or illustrations, often accompanied by short texts or phrases, to convey emotions, ideas, or messages concisely and impactfully. The study examines how stickers, widely used in digital communication platforms, can be employed as pedagogical resources to develop students' language skills and critical reading. The analysis indicates that the use of multimodal genres, such as stickers, in educational practices allows for the integration of visual and textual aspects, stimulating critical reflection on the messages involving images and symbols. Through a literature review, the overall objective was to investigate the use of the multimodal genre sticker as a pedagogical tool in English classes. It was possible to ascertain that stickers can be an effective tool for promoting a more dynamic and critical teaching of the English language.

Keywords: Sticker, Visual-Critical Literacy, English Classes.

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INTRODUCTION

The advancement of digital technologies and the growing use of visual and multimodal tools have had a significant impact on the educational field, especially in language teaching. The sticker genre refers to a form of visual communication that uses images, icons, or illustrations, often accompanied by short texts or phrases, to convey emotions, ideas, or messages in a concise and impactful way. Widely used on digital communication platforms such as WhatsApp, Telegram, and other social networks, it has become an integral part of students’ everyday communication (Castro et al., 2023). This resource, which combines image, text, and symbolic elements, presents itself as a new form of interaction and expression, raising questions about its pedagogical potential. In the context of English language teaching, the use of stickers may represent an innovative opportunity for the development of visual-critical literacy, helping students interpret and produce texts that involve multiple modes of communication.

However, what is generally observed in English classes is the limited exploration of this multimodal resource. Despite the increasing use of stickers in students’ daily lives, there is a significant gap regarding the pedagogical use of this genre in language teaching activities. The following question therefore arises: in what way can the multimodal genre sticker be used as a pedagogical tool to promote visual-critical literacy in English classes? We begin from the hypothesis that the planned and strategic use of stickers in educational activities can foster not only language learning but also the development of students’ critical skills, enabling a deeper reading of visual and multimodal texts.

This study is justified by the growing relevance of multimodality in contemporary communicative practices and on the need to prepare students to engage critically with these genres. By integrating stickers into English classes, teachers can make activities more meaningful and connected to students’ digital reality, while also promoting a critical and reflective approach to visual forms of communication.

Thus, the general objective of this study is to investigate, through a literature review, the use of the multimodal genre sticker as a pedagogical tool in English classes, with a focus on visual-critical literacy. The specific objectives include: discussing what literacy is; analyzing and identifying the characteristics

of the sticker as a multimodal genre; and discussing how the use of this resource can contribute to the development of critical and communicative skills in English classes.

LITERACY

The term literacy may be considered quite current in the field of Brazilian education. According to Soares (2019, p. 32):

“...this term seems to have been used for the first time in the country in 1986 by Mary Kato, in the book *No mundo da escrita: uma perspectiva psicolinguística*. As part of a book title, the term appeared in 1995 in the books *Os significados do letramento*, organized by Ângela Kleiman, and *Alfabetização e Letramento*, by Leda V. Tfouni.”

It is understood that teaching English from a literacy perspective does not mean merely transmitting content in a fragmented way, or working with texts through a process of vocabulary training and isolated or decontextualized content. Teaching must, in fact, be situated within social contexts through reading. Part of this work consists of bringing in news, promoting contact with newspapers and magazines, and reading short texts in digital media, comic strips, and comics. It also means enabling reading not only at school, through textbooks, but also in different places, such as an instruction manual explaining how to assemble a device, or even a guide for finding a route to reach a destination without getting lost.

Working with literacy enables students to encounter different places and cultures without leaving the classroom or home, through readings of stories, fables, films, among others, and even becoming emotionally involved with their endings, with the morals or life lessons of fables, and with the characters in general.

Furthermore, working from the perspective of literacy also means promoting self-discovery, since understanding oneself by writing an autobiography and discovering what one wants to become through it is, in other words, enabling learners to appropriate writing for use in social practices.

Literacy, in this sense, is the way of understanding and interpreting a text, making use of its messages in practical life. According to Soares (2019, p. 35), the term “is of English origin, ‘literacy,’ which translated into Portuguese means being literate.” To achieve this state of literacy, pedagogical work is required through teaching based on authentic, contemporary genres—texts from the learner’s social context from a critical perspective—so that students may use writing in social practices.

Thus, in today’s world, an interesting and appropriate teaching practice cannot be limited to the mere reproduction of the letters of the alphabet and the decoding of written symbols. Nor are superficial readings viable amid the many tiny texts of primers, emptied of meaning, with no connection whatsoever to students’ everyday lives and no openings for dialogue and questioning, as was once done in schools. Today, literacy acquisition is no longer synonymous with the 26 letters of the alphabet; it has become much more than that, since reading involves modes of being, ways of living, and ways of acting in the world, as the social text is constructed within society. If this is how it works in the acquisition of the first language, the same principle applies to learning the English language.

MULTIMODAL GENRES AND MULTILITERACIES IN THE CLASSROOM

There is consensus that, with the advancement of technology, as already stated, textual genres have multiplied and their concept has also changed. Stories and cultural facts of life, for example, which were once told or conveyed through social texts such as notes, letters, newspaper columns, among others, now appear in other formats. With the intensification of digital media, the speed at which these stories and facts circulate has also multiplied, reaching people’s homes more quickly and with simultaneous content, within multimodal texts. We therefore understand that, in order to keep pace with the speed of the world, the text has become “multimodalized.” Thus, there has emerged a need for a practice aimed at the multiliteracy of young people, because, according to Rojo (2013, p. 14):

“The concept of multiliteracies, articulated by the New London Group, seeks precisely to point out, from the outset, through the prefix ‘multi,’ two types of ‘multiples’ that contemporary literacy practices involve: the multiplicity of languages, semioses, and media involved in the creation of meaning for contemporary multimodal texts and, on the other hand, the plurality and cultural diversity brought by contemporary authors/readers to this creation of meaning.”

Thus, we believe that this student will become capable of formulating hypotheses, extracting and/or attributing negative or positive meanings to the constructive whole of the work—meanings that emerge from their experiences, lived realities, and knowledge, and that may or may not be confirmed upon completing the reading.

In view of this, we understand that when the learner becomes capable of this feat, it may be said that they have reached the state of being multiliterate. Thus, they will be active within the process of the “multis”: multiculturalism, which is generally implicit in a text—graphic, imagetic, digital—in globalized society; and the multimodality of the texts that compose it, encompassing visual, sound, gestural, spatial, and visual aspects, which are social and cultural resources that integrate with the text with the aim of multiplying meanings, a process also known as semiosis. In this way, multimodal genres are understood as texts that combine two or more of these modes of language, these semioses.

These texts, known as verbal texts combined with nonverbal ones, used to be called mixed texts; in contemporary texts, however, they are called multimodal genres: texts that combine two or more modes of language. They may also be categorized as a “multitextual” genre, a macro-verbal text with several mini-texts around it. This has become possible with the support of new technologies, making texts increasingly dynamic due to the greater articulated mixture of these modes of language.

Reading work from this multimodal perspective requires understanding images, sounds, and other semioses not merely as illustrations. It is necessary, in fact, to know why a particular image is on the featured cover of the day’s newspaper, reaching a level of comprehension similar to what we experience when we hear noise outside the house and know that it is raining, or when we listen to music or watch a video and become emotional because we have understood the message.

Teaching English in the light of multiliteracy will be a splendid process, since, when taught in the traditional form in which the teacher is the sole holder of knowledge, this practice silences the student, as there are no discussions or exchanges of conceptions with learners. In addition, another obstacle to meaningful learning is the use of monotonous materials that are distant from students’ realities and interests, with an emphasis on formal aspects of grammar. According to Faraco (2006, n.p.), referring to the fear of memorizing terms, concepts, and rules with no relation whatsoever to contemporary life, this “is a huge bogeyman in people’s lives.” This connotation of “devouring” reveals the function of consuming the meaning of use and function, generating the fragmentation of teaching.

Nowadays, choosing multimodal texts is a way to mitigate this fear of the English language, which cannot be taught in isolation but rather in context. Multimodal genres, such as a comic strip, for example, provide this possibility by ensuring the development of multiple interpretations in a text, with opportunities to follow a more dialogical line, involving social themes aligned with students’ tastes and interests.

In view of the facts mentioned, it can be concluded that the use of multimodal genres has expanded with the growth of the internet. Consequently, young people are in daily contact with these creations on smartphones. These more powerful mobile phones, with the functions of a computer, have allowed the proliferation of social communication networks such as Facebook, WhatsApp, Instagram, and even digital figurines, or stickers. Furthermore, according to Maia (2013, p. 62), “the population’s contact with ICTs (Information and Communication Technologies) and the simultaneous reduction of costs allow peripheral groups to gain faster access to information and to produce and share content.” In view of this, a pedagogy of multiliteracies with critical teaching is necessary, grounded in various texts of the multimodal genre, which may contribute to the resolution of various issues involving conflicts, indifference, intolerance, racism, inequalities, and emerging prejudices in the classroom.

Moreover, the use of texts from the perspective of multiliteracies inserted into the classroom brings innovative benefits to education and to the intellectual development of human beings, even more

so when the theory is focused on visual-critical literacy. This type of literacy, according to the theorists of the New London Group (1996), “attributes verbal language to the use of moving or still images.” Among the many relevant reasons for promoting this literacy are: the valuing of all learners, the training of small/large entrepreneurs, and the formation of students as citizens.

This is because students who are constantly connected to Digital Information and Communication Technologies (DICT), according to Prensky (2001) and Palfrey and Gasser (2011), cited in Tezani (2017, p. 297), “are called ‘digital natives.’” Therefore, teachers must detach themselves from the standard teaching model in order to begin integrating or innovating their classes with these new media, both electronic—television, radio, and the internet—and printed—newspapers, magazines, journals, folders, leaflets, pamphlets, recipes, instruction manuals, posters—as well as digital media—e-mails, internet, digital phones and applications—in other words, mass media. This is because these resources allow for diverse simultaneous uses of language, whether verbal, oral or written, photographs, or images, in school practice. In addition, they ensure the interaction of different forms of knowledge, including linguistic, textual, visual knowledge—visual, spatial, or gestural—and world knowledge together with diverse cultural traditions, which come together and multiply the meaning or significance of reading or of the text. Thus, this is highly positive in the learning context, as it guides learners to deal with and respect differences, raising self-esteem and self-knowledge.

In this way, it will also contribute to the formation of entrepreneurial students, because this cultural multiplicity, present in multisemiotic texts, whether digital or printed, is what gives voice to visual images. By analyzing the context in which they are inserted, students carry out visual reading, which broadens their horizons and helps them organize in their minds the ways of seeing and recognizing everything that surrounds them. As Fairclough (2016, p. 97) states, “...the discursive constitution of society does not emanate from a free play of ideas in people’s heads, but from a social practice that is firmly rooted in material, concrete social structures and oriented toward them.”

Thus, every student has a voice, due to the countless possibilities and points of view that may emerge when interpreting an image. This interpretation identifies possibilities of seeing, expressing opinions, and thinking in different social situations, with personal initiative, critical, responsible, and constructive positioning, and the sharing of ideas, using dialogue when making decisions and seeking transformations collectively, yet always according to the cultural context.

On the other hand, we have the formation of students as citizens, insofar as teaching takes place in an integrated manner with words, sounds, and images. When these aspects are well explored in the classroom, they lead students to use different languages, verbal and nonverbal, as a means of producing and communicating ideas, interpreting and enjoying the cultural goods that surround them, or, in Goethe’s words: “Merely looking at something tells us nothing. Each look leads to an inspection, each inspection to reflection, each reflection to a synthesis, and then we may say that, with each attentive look, we are theorizing” (cited in Barros, 2006, p. 01).

Therefore, by handling different sources and means of information associated with technological resources, which are rich in images, students develop autonomy to acquire and construct their own knowledge. Thus, by appropriating new knowledge and putting it into practice—whether with family, friends, or community—this individual has new ideas, shares them, questions, discovers, shares points of view, helps others, and asks for help if needed. In the future, they may be capable of socializing opinions and points of view. This concerns the full development of the individual, who elaborates their life project, which is a necessary condition both for intellectual and moral formation, and serves as a guide for students to live collectively, exercising citizenship ethically. After all, “one of the main objectives of school is precisely to enable its students to participate in the various social practices that use reading and writing (literacies) in city life, in an ethical, critical, and democratic way” (Rojo, 2009, p. 107).

Considering the arguments mentioned, we argue that the use of multiliteracy focused on readings of multimodal genres and visual-critical literacy, with innovative, integrated, and authentic readings, contributes to educational formation, preparing students for adult life with regard to work, the exercise of

citizenship, and social experience. This can be reiterated through the “pedagogy of multiliteracies,” which values the formation of students not as mere consumers, but as transformers, researchers, and critics when faced with any text, even when producing one.

Furthermore, the multimodal text may include these five modalities—linguistic, visual, spatial, gestural, and auditory—at the same time. Each modality presents its own meaning; however, they come together and combine in such a way that one supports another. In addition, one expands or multiplies the meaning of the other. Thus, in order to perceive these modes in the same text, Halliday (1975 cited in Cani, 2019, p. 248) observes the need to articulate three meanings: ideational, related to experience of the world; interpersonal, related to the expression of the speaker’s social role; and textual, related to the ability to create and identify a text. In this way, by associating these meanings, various interpretations emerge.

It should also be emphasized that a text composed of a single modality will not currently meet the needs of the social group. In the case of students, it will not be an inviting text, because the appropriate contemporary text that young people want is one with reduced phrases, but with a greater range of information encompassed in these short sentences through other modalities, such as images, colors, and so forth.

Human communication is multimodal from an early age; that is, language development occurs multimodally in face-to-face interaction from birth. In this regard, Vygotsky (2010, p. 39) states that:

“In this type of interaction, individuals particularly play a fundamental role in the construction of the human being; therefore, social interaction, whether directly with other members of the culture or through the various elements of the culturally structured environment, provides the raw material for the individual’s psychological development.”

With regard to interaction in the communicative process in the classroom, which is the interest of our study, some modalities are involved: sight, hearing, and the visual or gestural information provided by the participants in the discourse, which serves as support to complement the receiver’s auditory

information. Generally, facial expressions, eye movement, body movement in general, postures, nonverbal sounds, and appearances are used.

In addition, the main basic function of language is “cultural exchange: the language system, or modalities, that human beings create in order to communicate with their peers, which is clearly visible in human beings from infancy” (Vygotsky, 2010, p. 44). This means that, even without knowing how to read and write or understand the words expressed by adults at this stage, communication can occur through sounds, gestures, and expressions. The reader or interlocutor who has the ability to identify the meaning of this multimodal message, managing to use this multiplicity of modes in favor of meaningful interpretation, will have this interpretive capacity of the modes as what makes them a multistate being; that is, one who reaches various states of multiliteracy.

Teaching English in the light of multiliteracy is an excellent process, since when it is taught in the traditional, passive form, teaching becomes tiring. The teacher is the sole holder of knowledge, silences the student, there are no discussions or exchanges of conceptions with learners, and monotonous materials that are distant from students’ realities and interests are used. It should also be noted that, for an educator who has already been teaching the same subject for approximately thirteen years, it may even be possible to present basic grammar and vocabulary; however, today, choosing a more dialogical approach, with social themes aligned with students’ interests, should be the choice of all teachers, including those from other disciplines.

This pedagogical work, consistent with the learner’s real needs, acts in favor of a multidisciplinary and simultaneous multiliteracy, so that the student may become “multiliterate” in an integrated way, since the role of fostering literacy does not belong only to the language teacher. It is necessary that, in all curricular components, there be an understanding that, in order to act fully in the world, the student must be literate in other disciplinary knowledge or in all aspects of life.

Being aware that all texts manifest themselves in some textual genre, which are communicative models, broad knowledge of the functioning of different textual genres will be important for this study, both for the comprehension of textual reading and for text production.

VISUAL-CRITICAL READING IN THE CLASSROOM

What can be done to reduce fights in the schoolyard caused by sending “nudes”—one to another girl’s boyfriend—and by bullying? Such incidents often result in physical altercations.

It is indisputable that the first and foremost response is to react to so many conflicts and not to ignore them or assume that they are mere childishness because they are part of one’s age. These situations are texts from the social context of the community, with prominent voices in the group chosen for our study. They are situations that may appear implicitly in a reading, in which the teacher may draw attention to this perception and, from there, work with discourse, belief, ideology, and prejudice, analyzing the issues collectively in order to promote reflection and better re-elaborate these concepts democratically. Here, it is worth evoking the thought of Paulo Freire (2018, p. 39), when he states that critical teaching practice implies right thinking and involves the dynamic, dialectical movement between doing and thinking about doing.

Furthermore, the pedagogy of multiliteracies, which according to Rojo (2012, p. 28) emerged with the New London Group, is described by Viana et al. (2016, p. 43) as a movement that advocates the creation of teaching projects so that cultural conflicts arising from young people’s reality may be addressed in the classroom, reducing violence and generating perspectives for a better future.

With these practices, we will certainly be contributing to education for life, to the formation of good people, thereby developing critical sense by confronting and debating points of view. In addition, it is possible to make classes more creative and meaningful by promoting teaching grounded in the student’s own life and in the dynamic learning of the English language, which is currently taught with so little ingenuity and criticality, relying only on disconnected content.

It is also worth emphasizing that, through this methodology, students will be able to disseminate knowledge, transform discourse, and construct a new discourse for the community. This is literacy/critical reading. In this regard, Freire (2018, p. 96) tells us that a “critical-educational practice is one in which, as a specifically human experience, education is a form of intervention in the world.”

As can be seen, the context demands the need for a highly critical stance in order to avoid the spread of these negative discourses around the school and in other social groups in which students participate, such as family and groups of friends. Even in groups on social networks, “stickers” appear with implicitly embedded prejudiced marks. Breaking with this will only be possible through a critical pedagogical stance, which, according to Coimbra (2008, p. 54), “may be considered a path that leads to questioning the fallacy of social inevitability, since it is part of its actions and of the survey of belief systems... internalized in society.”

This process will be fundamental for the socialization and humanization of these young people, due to the processes of renewing concepts through discourses pertinent to the critical act and through problem-solving aimed at the construction of new social texts.

Through the points of view that emerge in the analysis of sentences, other forms of positive knowledge about this same group of students may be perceived. Even when they externalize this lack of perspective on life through this social text, they may still possess raw material, namely those positive forms of everyday knowledge. Moreover, this knowledge arising from daily life is essential to teaching practice, according to Freire (2018), because by starting from this knowledge, students may feel more valued, since the studies are taking their knowledge into account. In other words, it is necessary to show that there is good knowledge stored in their minds and that those crystallized discourses are often negative “dogmas” that they hear other people say and reproduce. It is up to educators to prevent the proliferation of these arguments, especially because it is understood that the process of this critical reading ends in the mind, where:

“There are two types of memory: short-term memory, or immediate memory, or working memory, which has a limited capacity of at most nine elements, such as words, and as new words arrive, it empties itself to make room for nine more words; otherwise, it becomes overloaded... and once memory is emptied, if we cannot recognize the material as a meaningful unit, it will be immediately forgotten. But if the material is meaningful, it begins to receive the action of another type of memory, whose capacity is not limited: deep memory or long-term memory, where all knowledge is organized: knowledge of the language, experiences, convictions, habits, etc.” (Kleiman, 2008, p. 16)

Hence the importance of working with reading according to students’ culture, so that they may see that the focus of pedagogical practice is on reading comprehension and not, in isolation, only on grammar or only on vocabulary, which, if presented separately, would possibly be lost in immediate memory. This does not mean that the two are not important, but it is necessary to integrate them into a whole, in order, through the result, to present the English language as a possibility for expanding knowledge. In addition, students can be encouraged to develop new perspectives on cultural life, enabling them to exercise their citizenship in a critical and reflective manner.

For this purpose, it will be important for reading comprehension activities to take place in three parts: pre-reading, which precedes reading; detailed reading; and post-reading.

The first stage will activate world knowledge, or prior and long-term knowledge, as Kleiman (2018) calls it, in relation to the text that is about to be read, aiming at greater interaction between the student and the text. This moment occurs before the student reads the text and takes place through activities prepared to verify what contributions learners bring regarding the subject. A discussion or an exploration of the image that generally represents the content of the text may be carried out, or a video, a song, or an informal conversation may be used. What matters at this moment is what will attract or motivate the student to “embark” on the text.

The second stage is the moment when the objective of the text is stated to the learner, showing the reading instructions, what they will identify, and what they will do with that reading. At this stage, the reader begins to search through their previous knowledge for everything that is relevant to reading

comprehension. The text always offers many paths, but not everything is evident; therefore, some inferences are necessary, and these require questioning and analysis, that is, critical reading.

The third and final stage brings together the student’s long-term knowledge, which has already been activated in the pre-reading activity, with the content of the text seen in the second stage of reading. It is worth emphasizing once again that the educator must follow certain factors when choosing the text, such as the student’s linguistic level and personal interest. In this phase, the student starts from the knowledge already acquired and consolidates new knowledge, thus forming the reading cycle. Once appropriated, this new knowledge will, in turn, become prior knowledge in other discussions or reading situations.

It is also important that reading be well planned, so that students may achieve the result intended by the teacher. For this reason, activities need to be carefully designed and must be aligned with the objectives and, as already stated, with the student’s linguistic level. In addition, it is important that they correspond to the student’s needs, for example: short texts involving fixed sentences whose structures may include “Greetings,” “Classroom Words,” and “Magic Words.” These texts are within the students’ interests and needs, since they need to greet one another and the teacher, as well as apologize and use polite language in the classroom with everyone in the class. In this way, by beginning to interact with these short phrases, they may feel secure in their linguistic competence, which will give them the certainty that they are capable of much more, provided that they seek the knowledge necessary for use in daily life.

FINAL CONSIDERATIONS

The purpose of this study was to seek to understand the pedagogical potential of the multimodal genre sticker in English classes, with a particular focus on visual-critical literacy. Based on the literature review, the analysis showed that, although stickers are widely used in everyday communication, this resource is still underused in educational contexts. However, the studies analyzed demonstrate that the use

of multimodal genres, such as the sticker, offers significant opportunities to promote critical reading and the production of texts involving multiple languages.

The sticker, due to its hybrid nature, allows students to develop both their linguistic skills and their ability to interpret visual texts. When used in a planned manner, this resource can enrich pedagogical practices, making language learning more dynamic and relevant. Furthermore, by working with stickers, students can develop a critical view of the messages conveyed through images and symbols, which contributes to broader training in terms of visual literacy.

Thus, the use of the sticker genre in English classes can be a powerful tool for integrating visual-critical literacy into educational practices, offering students an innovative way to engage with language and digital culture. The study reinforces the importance of teachers exploring new multimodal genres, adapting their pedagogical strategies to include students' digital realities and to promote foreign language teaching that is both meaningful and critical.

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**THE IMPORTANCE OF LITERARY WORKS IN READER FORMATION: A
METHODOLOGICAL APPROACH IN PORTUGUESE LANGUAGE** <https://doi.org/10.63330/aurumpub.046-018>**Francisco Welton Machado¹, Marina Rocha de Castro², Francisco das Chagas Gomes³, Kennedy José Alves da Silva⁴, Noé da Silva Carvalho⁵ and Raimundo Lenilde de Araújo⁶****Abstract**

Literary works may be classified as a sociohistorical product of their time, and they contain elements that explain and elucidate problems of the present. The reading process constitutes one of the best means for the development of individuals. Through reading, human beings are able to interact with society by means of the written word. Reading and textual interpretation are essential tasks for the formation of literate individuals. It is necessary to read and produce varied texts in order to respond to distinct situations, in which the individual is expected to be able to read and write correctly. Different textual modalities comprise diverse genres, which may be written or spoken and are easily recognized by people. In this sense, the process of reader formation is a tool that requires variables that foster reading practice, which should not be limited solely to material resources, since the appropriate use of books and other materials containing texts is the determining factor for the development of reading practice and engagement with reading. Therefore, the general objective of this study was to conduct a bibliographic review in order to gather data on the main contributions of literature to the formation of readers. The bibliographic review was the research methodology used in this work, drawing on articles published in international journals, articles published in recognized national journals, books, theses, and dissertations. Based on the readings

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carried out for the construction of this article, it is possible to state that literature should always be considered fundamental to students' learning.

Keywords: Literature, Readers, Teaching and Learning.

INTRODUCTION

Literary works may be classified as a sociohistorical product of their time, and they contain elements that explain and elucidate problems of the present. The perception of the world within the imaginary and subjective dimensions of authors and literary characters contributes to the realization of certain historical-social visions. The social contexts and everyday life presented in Brazilian literary works indicate that values need to be reconsidered (Simon, 2018).

The reading process constitutes one of the best means for the development of individuals. Through reading, human beings are able to interact with society by means of the written word. Therefore, this process provides readers with the ability to understand the text and the written word, which acquire new meanings through the reader's action (Santos et al., 2018).

Arana and Klebis (2015) establish that reading is part of an interactive process, as it activates and interacts directly with the various forms of knowledge acquired by the individual, which at all times becomes essential for understanding what is read.

According to Silva (2013), reading is a process of understanding the world that includes characteristics necessary for human experience, encompassing symbolic capacity and interaction with another word present in the social context. Thus, a text becomes complete through reading insofar as the linguistic and thematic dimensions are updated by a particular reader.

Different textual modalities comprise diverse genres, which may be written or spoken and are easily recognized by people. They are part of a tool capable of assisting and contributing to the process of reading development together with autonomy. For Soares (2013), reading and textual interpretation are essential tasks for the formation of literate individuals. It is necessary to read and produce varied texts in

order to respond to distinct situations, in which the individual is expected to be able to read and write correctly.

The reading process taught in schools is carried out in a systematic and mechanical manner; that is, letters are spelled out, syllables are composed with letters, words are formed with syllables, and, finally, texts are formed with words. This process eliminates the possibility of forming readers from the perspective disseminated by Bakhtin (1988; 2000), since it is grounded in the decoding of written-language codes, without attributing sense or meaning to them, and is disconnected from interaction and dialogue with the other.

Bakhtin (1988, p. 42) believes “that the linguistic system is the product of reflection on language.” Therefore, in contact with the language of readings, the reader becomes acquainted with countless types of utterance, according to the context, since everyday oral productions differ from the more complex ones found in moments of reading. Thus, the reader enriches their repertoire of utterances through the materials read.

Bakhtin (2016) argues that the use of language occurs through oral and written utterances, directed toward the individuals participating in that field of activity. Utterances require three essential elements specific to each sphere, namely: thematic content; style; and compositional construction.

Different textual modalities comprise diverse genres, which may be written or spoken and are easily recognized by people. They are part of a tool capable of assisting and contributing to the process of reading development together with autonomy. For Albuquerque (2007), reading and textual interpretation are essential tasks for the formation of literate individuals. It is necessary to read and produce varied texts in order to respond to distinct situations, in which the individual is expected to be able to read and write correctly.

According to Bakhtin (2016), speech genres lead to standard forms that are relatively stable for an utterance and are sociohistorically determined, so that we communicate only through speech genres, of

which individuals possess a broad repertoire, since adherence to genres occurs as spontaneously as language acquisition.

It becomes necessary for the school environment to promote activities that lead students toward integrative pluralism, enabling them to read the world critically, understanding different cultural interests that describe their actions, relationships, and consequences (Rezende, 2018).

The process of forming readers is a tool that requires variables that foster reading practice, which should not be limited solely to material resources, since the appropriate use of books and other materials containing texts is the determining factor for the development of reading practice and engagement with reading. Thus, the National Curriculum Parameters emphasize that didactic methodologies oriented toward the purpose of forming readers are necessary, including suggestions for students' work, which may serve as a reference for the creation of other activities (Brasil, 2010).

Accordingly, the general objective was to conduct a bibliographic review in order to gather data on the main contributions of literature to the formation of readers. The bibliographic review was the research methodology used in this work, drawing on articles published in international journals, articles published in recognized national journals, books, theses, and dissertations, all retrieved from the PUBMED and Scielo databases. The criteria used were the languages Portuguese and English, searched using the descriptors: Literature. Readers. Teaching and Learning.

DEVELOPMENT

THE IMPORTANCE OF LITERATURE IN TEACHING AND LEARNING

Most literary works relate emotions and feelings as aesthetic expression and enjoyment of emotions. Only a minimal portion mentions teachings of a moral and behavioral nature. From the Vygotskian perspective, a work of art whose purpose is moral and behavioral instruction may produce adverse effects. The role of the work of art should be aesthetic enjoyment, and it should not serve as a pretext for teaching a specific content.

Literature was constituted as a literary genre and emerged in the history of human civilization from the eighteenth century onward, when childhood gained an importance that had previously been forgotten. However, it was only a century later that literature entered school institutions through pedagogical characteristics aimed at shaping the child's character, which was still viewed in a limited way.

In Brazil, the twentieth century intensified the relevance of literature for development, as it came to be considered an important axis for the child's intellectual and cultural development. Silva (2013) corroborates this explanation, considering that the resources of Children's Literature are potential allies in the process of developing the higher function of attention, since the greater the understanding of adult language and mastery of one's own speech, the more complete and determined the child's memorization capacity will be, which is possible through literature.

It is known that literature and the act of storytelling guide, socialize, and entertain children. This practice acts directly on their development, because throughout this process the child undergoes psychological and moral maturation that will influence their growth as a subject.

Thus, the broad importance of literature for the child's psychic, intellectual, and cognitive development is justified, since through this practice the student's imagination is stimulated while exercising functions of affectivity, language, memory, imagination, and perception, among other aspects. In this sense, it may be stated that through contact with literature, the child expands their possibilities, which is made possible through imagination.

Above all, literature goes beyond entertainment; it enriches vocabulary and language, contributes to human development, and helps children develop confidence and creativity. In addition, stories encourage cognitive tasks relevant to thought, such as verification, generalization, logical reasoning, spatial and temporal relationships, among others (Zilberman, 1989).

The more frequent the interactions with reading and writing in educational contexts that promote emergent literacy, and the more reading and writing are part of the child's daily life—at home and in

preschool—the more easily children will develop their personal projects as readers and writers who are involved and committed to language (Velosa, 2014).

Therefore, the importance of literature arises from the child's contact with books, and not only when they become readers, providing conditions that contribute to the child's full development. It also enables access to the construction of their identity through different characters, settings, contexts, origins, unique characteristics, and specificities that value culture and the human being as a whole (Souza, 2009).

When presenting stories to children, it is possible to observe how literature promotes the expression of their feelings, concerns, and anxieties, and may also contribute to overcoming certain adversities, as it encourages children to experience their own personal fears and apprehensions.

Thus, the importance of these activities for children's formation is indisputable, since they act in expanding vocabulary, developing language and thought, refining attention, memory, and reflection, stimulating sensitivity and self-knowledge, and contributing to the development of cognitive functions such as comparison, logical reasoning, and hypothetical, convergent, and divergent thinking.

We see in literature a new mindset for these students, active beings who, through literature, will be able to organize learning and thought. Furthermore, the school is the most effective space for the formation of the individual, where literary studies develop the mind, relationships, and a different reading of the world; how can one deprive them of this, when only the act of reading and presenting this path to them can provide them with these forms of knowledge?

This space must be open to self-knowledge, existing culture, and new paths. This space for literature should not be linked only to the classroom; it should go beyond it, taking children to the library, reading corners, workshops, and laboratories, showing them that reading is not something rigid that should happen only inside the classroom.

According to Coelho (2000):

Literature is, above all, literature; or rather, it is art: a phenomenon of creativity that represents the world, human beings, and life through words. It merges dreams and practical life, the imaginary and the real, ideals and their possible/impossible realization [...] (Coelho, 2000, p. 27).

Literary works were reduced to intrinsic values, but this has changed over time, with the aim of attracting the child to participate in the experiences that life provides both in the real world and in the world of fantasy.

The importance of Literature in the formation of the child has been provoking changes within cognitive and psychological factors. It fulfills a significant function, in which physical reality surpasses the limits of imagination, transcending the immediate needs of life (Moreira, 2018).

From the twentieth century onward, literature has been seen as forming the new adult of tomorrow, shaping personality and mental structures, also depending on the environment in which children live. Children's literature is an intermediary between the adult author and reality, and for the child reader it serves as a means of acquiring experiences, thus transforming the act of reading into learning. In addition, it is a tool that reaches children's hearts in a calm and affective way, in order to bring to them what the real world is like, in the form of tales, fables, nursery rhymes, quatrains, among others. For this young reader in focus, brief texts with drawings and images should be proposed, and the teacher's presence is crucial so that, together, they may interpret the story, since children need our encouragement in order to experience the pleasure of reading.

We may also highlight reading carried out by the adult, through which the child comes to know new words extracted from books. In this way, the child performs the generalization of meanings and senses that contribute to the assimilation of concepts. Therefore, the work of art may serve as mediation for the child's understanding of emotions and feelings, assisting in the process of forming higher psychic functions. The work of art refers to realities not experienced by the child, which is fundamental to the development of imagination and creativity (Marçal, 2016).

In the same line of thought, Mendes and Mota (2020) state and emphasize that the educator is an important part of this process and must therefore assist children in constructing this process of identity

and relationship with otherness, promoting appropriate and stimulating activities that foster their emotional development.

LITERARY LITERACY

Silva (2019) explains that from the 1980s onward, studies on literacy began to gain momentum in Brazil, establishing actions that, by using writing and reading as technological as well as cultural tools, focused on redefining basic education.

These studies highlighted the fact that reading and writing are driving factors in literate societies, not least because in these societies, reading and writing have become the gateway for the subject into the universe of knowledge and, thus, one of the steps toward assimilating society's values, which are, for the most part, recorded through written code (Silva, 2019).

According to Barbosa (2011), the term literacy, which is currently quite formal, refers to processes of appropriation of writing as a technology increasingly considered fundamental in modern societies. Far beyond knowledge of a symbolic code, this term allows reference to the mastery of a set of social practices focused on writing.

The concept of literacy still sounds new to many, although it is widely disseminated in academic and school contexts. It was formerly seen as yet another novelty, but in a certain way it has gained ground in teacher education courses and in academic research. Thus, literacy appears as inseparable from life in society. In the school context, working with the various types of literacy, guiding students along paths through which others may be developed, is an essential factor in the teaching process (Vieira, 2015).

There are many uses of writing in modern societies. In this case, literacy provides the possibilities that individuals acquire to participate effectively in the most diverse social practices. Thus, it is possible to observe the increasingly common use of the term in the plural, literacies, a fact that may indicate differences among reading practices arising from their numerous objectives, forms, and objects, together with the diversity of current contexts and media (Barbosa, 2011).

Pinheiro (2011) states that the relationship between school and literacy is considered a complex field, due to the occurrence of a type of school control, instead of seeking the expansion of social practices. Thus, school literacy is considered insufficient when it seeks to measure and evaluate reading and writing skills. In some countries, such as Brazil, inconsistent and often discriminatory functioning gives rise to multiple and differentiated patterns in the acquisition of literacy.

Reflections on reading and writing, associated with the relationships between social demands and individual competencies, are embedded within studies on literacy and are divided into two perspectives, which are, according to Silva (2019):

- **Autonomous Model:** this model receives criticism for restricting literacy to a set of cognitive abilities that may be measured in individuals as the degree of literacy, the level of literacy, or low literacy. By focusing on individual cognitive competencies and taking as reference the subject's relationship only with the written text, the autonomous model shares an understanding of literacy "as knowledge about, situated in people, in people's heads, to solve problems mediated by writing." This model leaves aside reflections on how people use texts and what they do with them in different historical and cultural contexts. Thus, the autonomous model cannot explain why these differences between writing and speech emerged in certain contexts. It may be summarized that the focus on an autonomous model of literacy diverts attention from more complex variables.
- **Ideological Model:** the focus of this model is the social dimension of reading and writing. It is observed in the plural and is understood as a product of concrete and social practices. Literacy must be studied in relation to the culture, history, and discourses that foster these practices. From another perspective, reading and writing practices are embedded not only in cultural meanings, but also in ideological claims concerning the basis of literacy and the power relations associated with it. In this model, the phenomenon of literacy is studied from a broader perspective, taking into account the social nature of reading and writing, including the

multiple character of these literate practices, drawing on transcultural perspectives.

FINAL CONSIDERATIONS

Based on the readings carried out for the construction of this article, it is possible to state that literature should always be considered fundamental to students' learning. The issue of affectivity and intelligence is fundamental to the process of human development. Thus, we may conclude that the interactions that occur in the school environment also need to be affective in all aspects, being present at all moments or stages of the pedagogical work developed by the teacher and not only in the direct relationship that the teacher has with the student; reading can reach this level.

Regarding the reading process, it is a process of comprehension, of understanding the world, which involves an essential characteristic of the subject, granting them intellectual freedom and critical formation. It becomes necessary for the school environment to promote activities that lead students toward integrative pluralism, enabling them to read the world critically, understanding different cultural interests that describe their actions, relationships, and consequences.

Considering reader formation, it is essential that there be a harmonious relationship with books. The habit of reading needs to be contextualized and coherent with the cultural reality of society, because reading must be part of the child's life until the end of their life. Through reading, the child begins to interact with the world around them by means of the written word, in which they are an active being who gives meaning to the text, since it acquires meaning through the reader's action upon it.

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