

Anti-racist pedagogical intervention in Quilombola School Education: a theoretical proposal for the teaching of Geometry

PEDAGOGICAL PRODUCT

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Abstract

This work aimed to build a theoretical proposal of anti-racist pedagogical intervention for communities of schools with a curriculum focused on Quilombola School Education. Based on Bell Hooks' Engaged Pedagogy and Ubiraran D'Ambrosio's Ethnomathematics as a theoretical framework, the proposal was organized into two cycles. In the first, the reflection was on the implications of the quilombola communities in the formation of the Brazilian people, as well as in the recognition and respect of the quilombola people as historical and cultural subjects that must be valued. In the second cycle, we present a proposal for continuing education for teachers who teach Mathematics with a focus on combating racism. Among the results, the proposal of five mathematical tasks that articulate Geometry and Anti-Racism stands out. It is concluded that this proposal will promote a reduction in racist attitudes and behaviors at school among the school community, in which diversity is an element of the constitution of the Brazilian people.

Keywords: Anti-racist Pedagogical Intervention. Engaged Pedagogy. Ethnomathematics. Geometry.

Intervenção pedagógica antirracista à Educação Escolar Quilombola: uma proposta teórica para o ensino de Geometria

Resumo

Este trabalho teve por objetivo construir uma proposta teórica de intervenção pedagógica antirracista para comunidades de escolas com currículo voltado para Educação Escolar Quilombola. Baseando-se na Pedagogia Engajada de Bell Hooks e na Etnomatemática de Ubiraran D'Ambrosio como referencial teórico, a proposta ficou organizada em dois ciclos. No primeiro, a reflexão foi sobre as implicações das comunidades quilombolas na formação do povo brasileiro, bem como no reconhecimento e no respeito das pessoas quilombolas como sujeitos históricos e culturais que devem ser valorizados. No segundo ciclo, apresentamos uma proposta de formação continuada para professores que ensinam Matemática com foco no combate ao racismo. Entre os resultados, destaca-se a proposição de cinco tarefas matemáticas que articulam Geometria e Antirracismo. Conclui-se que esta proposta promoverá entre a comunidade escolar uma redução das atitudes e comportamentos racistas na escola, em que a diversidade é um elemento de constituição do povo brasileiro.

Palavras-chave: Intervenção Pedagógica Antirracista. Pedagogia Engajada. Etnomatemática. Geometria.

1 Introduction

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Etymologically, racism is the term used to name discrimination and prejudice, directly or indirectly, against people or groups because of their color or ethnicity. It should be noted that discrimination is characterized by the action of excluding, separating or distinguishing individuals or objects, while prejudice is a type of judgment or concept produced with no prior knowledge of the subject (Porfírio, 2020). To put it another way, racism is violence practiced by white people against black people, who are considered inferior beings and therefore shouldn't exist (for the perpetrators of this practice). This is one of the legacies of European colonization, which bled the entire national territory dry.

Racism is a system of power that confers privileges and inequalities on certain social groups. In this sense, Almeida (2019, p.12) considers that racism is always structural, that is, it is an undeniable part of society's economic and political system, since it is "the normal manifestation of a society and not a pathological phenomenon or one that expresses some kind of abnormality. Racism provides the meaning, logic and technology for the forms of inequality and violence that shape contemporary social life". Racial prejudice is therefore deeply rooted in society, which makes it all the more important for public authorities to guide us in drawing up laws and policies that not only combat racism, but also promote real racial equality.

In its individualistic conception, racism occurs when a person or group reveals itself through mental (verbal) or physical violence against other people or groups because of their race, color or ethnicity, denying entry to essential services or places for the same reason. It is important to note that the reason for such violence is not isolated, i.e. a black person also suffers this practice because they are poor (class), a woman (gender), and even because they are gay or lesbian (sexual orientation). In

other words, there is an intersectionality that allows us to "see the collision of structures, the simultaneous interaction of identity avenues, as well as the failure of feminism to contemplate black women, since it reproduces racism" (Akotirene, 2019, p.14).

In theory, based on the Brazilian Penal Code, any racist practice is a crime, according to law 7.716/1989, and the perpetrator can be sentenced to prison and a fine. In practice, the most that happens is that bail is paid and the perpetrator is released at the police station, without even having the opportunity to spend a moment in a prison. This is justified because racism is present in society's daily life, which includes its institutions, including the state, the justice system, schools and the police, as Mombaça (2017, p.3) points out: "racism against black and poor people is therefore in the DNA of the police and the chains of control and extermination that are articulated around them".

The school, as the social institution responsible for training children, young people and adults, must create a practice to combat racism in its various forms. To this end, the Basic Education Guidelines Law (LDB) was amended by Law 10.639/2003, which obliges the teaching of Afro-Brazilian and African history and culture in basic education. This must be part of the political-pedagogical projects of educational establishments throughout the country. It's the law! There's nothing to question!

However, even with legislation that regulates and "forces" the approach to Afro-Brazilian issues, many schools seem unable to make racism disappear from interactions between students. This is because countless situations of prejudice and discrimination against black students are reported in the country's main media outlets. This scenario indicates that we are still a long way from overcoming racism, whether institutional or of any other kind.

In a space full of exclusion and disrespect, evidenced by prejudice, many black students end up abandoning their studies when they realize that situations of racism, which still occur in other places that make up their reality, are also verified at school.

Regarding the analysis of racial prejudice in schools, Miranda (2016, p. 90) points out that:

[...] black people are still seen as servants of white people, due to the long history of slavery, there is a lack of self-esteem among black students who receive inferior nicknames and who often fail the year, or even drop out of school and end up being marginalized in the present day.

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In this sense, the Brazilian school has been revealed as an environment in which racist representations of black people are still distributed and potentiated (Gomes, 2003). Thus, we agree with Corrêa (2018, p. 1), when he states that:

[...] the school, as the locus for the construction of knowledge and citizenship, can no longer ignore what is happening within its walls. We know that we are in a society whose dominant discourse puts the responsibility for one's own destiny in the hands of individuals, advising everyone that only education is the instrument for social and economic emancipation, but ignoring all the centuries-old racism. Even so, this same society has neglected a welcoming school so that black children can develop their potential in the construction of knowledge. It is therefore imperative that we change the discourse and change the school.

In the case of schools located in quilombola communities, which have pedagogical projects aimed at valuing their identities, knowledge and cultures, they are not exempt from racist practices, because as Farias and Pereira (2018, p. 1) point out:

[...] although there is an effort and commitment on the part of the educators to carry out pedagogical actions in line with the Curricular Guidelines for Quilombola School Education, factors such as the turnover of educators and the welcoming of students from other places into the institution of the traditional community hinder and confuse the process of building black identity in these schools.

With this need for change in the school in mind, especially with regard to the educational practices that are developed to combat racism, we have drawn up this intervention project. The aim of the project is to promote reflection on the importance of the different quilombola communities in the formation of the Brazilian people.

Based on this aim, we have drawn up the following general objective: to build a theoretical proposal for pedagogical intervention from an anti-racist perspective for the community of schools with a curriculum focused on quilombola school education. By

raising awareness that everyone is a human being with differences, students will become aware that respect for differences is an essential element for coexistence in society. Based on the general objective, we have formed the following specific objectives:

- To propose interventions to combat racist attitudes and behavior towards quilombola people at school;
- To propose continuing education in Geometry from an anti-racist perspective for teachers who teach Mathematics in quilombola schools;
- To reflect on the intersectional factor between the concepts of race, class, gender and sexualities in the quilombola school environment.

In addition, due to the racist events experienced in schools, the focus of the project in this first cycle of interventions will be to combat racism against quilombola people. In this way, the objective will focus on the importance of quilombola communities in the formation of the Brazilian people, as well as recognizing and respecting the specificity of the quilombola person as a subject with a history and culture that should be valued. In the second cycle, we will present a proposal for continuing training for teachers who teach mathematics with a focus on combating racism.

2 Theoretical Framework

Racism is a form of violence that manifests itself in all the institutions that make up society, and the school is one of them. This means that the school environment is a space full of racist practices, especially in Brazil, a country marked by this phenomenon, the result of the European colonizing process, whose epistemology of life promoted the enslavement of countless African and indigenous nations. In this sense, as a result of European colonialism, especially that which took shape during the second half of the 19th century, Lélia Gonzalez (1988, p. 71, emphasis added) states that:

[...] racism was constituted as the "science" of Euro-Christian superiority (white and patriarchal), insofar as it structured the *Aryan model* of explanation that would become not only the reference point for the triadic classifications of positivist evolutionism in the nascent sciences of man, but which still directs the gaze of Western academic production today. It is worth noting that this process developed on the fertile ground of a whole pre-colonial ethnocentric tradition that considered the cultural manifestations of "savage" peoples to be absurd, superstitious or exotic.

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As Lélia Gonzalez points out, this European colonialist epistemology of life promoted a movement to naturalize in Brazilian culture an overwhelming ethnocidal violence that destroyed thousands of lives. This epistemology guided colonization in a process that sought to overthrow colonized peoples from their main bases of socio-cultural values, attacking their main foundations of socio-cultural values, assaulting their individual and collective identities (Bispo, 2015).

The school seems to be using an educational model based on a colonialist epistemology of life. You only have to look at printed newspapers, the news, social networks, podcasts etc. to see the countless cases of racism suffered mostly by students. However, teachers are not exempt from this violence, in other words, they are also victims. This indicates that the school is an institution that is unprepared to combat this and other violent actions. This also reinforces the idea that many teachers do not experience pedagogical spaces from an anti-racist perspective in their initial training.

Even with the publication of Law 10.639/03, which establishes the guidelines and foundations of national education, to include the subject of "Afro-Brazilian History and Culture" in the official curriculum of the Education Network, which obliges the inclusion of a subject on this subject in degree courses, what we see is that many universities have not yet included this component in the curriculum matrix of these courses as a compulsory character. In this way, the experiences and discussions around racism are addressed by teachers who feel the need for such an approach in the training of future teachers. Most of these teachers who take this approach have been victims of racism, including at university.

Over many years as a student and teacher, I have been inspired in particular by those teachers who have had the courage to transgress the boundaries that lock each student into an approach to learning like a production line routine. These teachers approach their students with the will and desire to respond to each one's unique being, even if the situation doesn't allow for the full emergence of a relationship based on mutual recognition. On the other hand, the possibility of this recognition is always present (Hooks, 2013, p. 25).

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This speech by Bell Hooks is an account of how teachers, unfortunately not many of them, break out of educational inertia and overcome what is prescribed in a rigid curriculum. It is important to point out that there is an educational structure that prevents teachers, in their training processes, from breaking with the various forms of manifestation of racism, from curricula to pedagogical actions.

The conceptual aspect is important, but it is not enough to train students. Students must be looked at through glasses that allow them to be seen as integral human beings, with specific lives and experiences, and not as blank slates. Engaged Pedagogy is essential and needs to be incorporated into teachers' pedagogical practice and into the projects for society that are intended to be developed:

When education is the practice of freedom, students are not the only ones called to share, to confess. Engaged pedagogy does not simply seek to strengthen and empower students. Every classroom in which a holistic learning model is applied will also be a place of growth for the teacher, who will be strengthened and empowered by this process. This empowerment will not occur if we refuse to open up while encouraging students to take risks (Hooks, 2013, p. 35).

Engaged Pedagogy is necessary, especially in a school where racism is a daily practice, but invisibilized and denied by Brazilian society, "because it is not considered a challenge to be faced, since it has not been assumed to be a phenomenon that deserves concern - especially because of the contempt shown towards the anti-racist struggle" (Oyêwùmí, 2021, p. 460).

Furthermore, considering that the school's "role" is to "train citizens capable of transforming society and making it fairer", this includes quilombola people and social justice in relation to these social groups, who have historically suffered violence as a result of colonization. It is necessary to think about a formative educational project that considers anti-racist education as one of its main pillars, because today, "racism

structured by modern colonialism insists on giving heavy burdens to black women and men" (Akotirene, 2019, p. 15).

In the case of Mathematics Education from an anti-racist perspective, in particular, Ethnomathematics is an important theoretical framework, since its purpose is to recognize, value and, specifically, respect the various mathematical practices produced and used by different peoples and cultures. In this way, this theoretical framework, coupled with a school curriculum that explores Afro-Brazilian history and culture, can be an efficient mechanism for combating racism in schools in relation to quilombola people.

In this sense, D'Ambrosio (2008) reflects that by making Ethnomathematics a practice in everyday school life, the teacher will have a good chance of achieving the intended learning objectives in Mathematics, through diverse visions for the complexity of cultural spaces and means of production. Including the student in the construction of their social and community group, explaining the historical and cultural difference in different scenarios, is essential in the educational process.

To teach mathematics from an ethnomathematical perspective, it will only be possible by reclaiming the values, knowledge and actions that students produce in their realities and bring to school. For this to become a reality, the teacher needs to create a space for listening and dialog with the students, in which they feel welcome to share their experiences. A pedagogical proposal that considers this perspective, valuing people and their knowledge, developed in their culture, can promote a transformative and anti-racist education. It is based on this logic that we have drawn up this intervention proposal.

3 Methodology

This proposal seeks to present some guidelines for the pedagogical work of schools in quilombola communities (quilombola school education), in view of the racism suffered by these people in different spaces. The existence of racist situations

already indicates that all the school's work needs to be based on democratic, participatory and collegiate management. In this sense, the school council must be involved in order to contribute to decision-making. So, by principle of school management, the case already presents the concept of democratic management, because:

[...] by taking on the concept of management, the school has also taken on the commitment to become synonymous with an autonomous and participatory environment, it is understood that this environment implies collective work shared by several people to achieve common goals. For this to happen, it is necessary to clearly define the objectives that are to be achieved and to prepare all the people involved in the work to achieve these objectives (Leite, 2012, p. 4).

As far as decision-making is concerned, in an immediate and emergency situation, meetings with students, short awareness-raising courses such as workshops and mini-courses tend to help:

[...] the workshops reveal the diversity of statements and reactions from teachers and students, as well as presenting both the possibilities and difficulties of combating racism in everyday school life. They function as a tool that contributes to the process of disputing the school curriculum, both because of the discussions it brings and raises in its course and because of the tensions inherent in the negotiations for its realization (Santos; Corrêa; Santos, 2018, p. 139).

However, when it comes to an issue as historical and ingrained in Brazilian culture as racism, based on the mistaken way that people understand human relations and perceive the other as a human being, with their diversities and specificities, perhaps the ideal thing for the school would be to have a proposal to work with all the subjects throughout the year, involving artistic, cultural and literary activities that could have racism as a central theme, as well as valuing the culture of the communities that attend the school. In this way, it would be an interdisciplinary project that would permeate all the pedagogical work at the school:

[...] através das práticas interdisciplinares percebe-se que é possível transformar a sala de aula tradicional em laboratórios de aprendizagem com significância para os alunos, onde o debate acerca de temas como preconceito e discriminação racial possam ser debatidos a fim de transformar a realidade que vivemos (Moura; Rocha; Rocha, 2016, p. 2).

Based on the assumption that awareness-raising doesn't just happen with a lecture, therefore it doesn't happen in a short course. Just like learning, it is a process that requires time and continuous and prolonged actions, in other words, permanent actions in the daily life of the school.

So, as a problem present in everyday school life, racism must be tackled in relations with students, teachers, managers, etc. To this end, we believe that long-term measures must be taken. For example, the inclusion, in the diversified part of the school curriculum, of curricular components that deal with ethnic-racial issues and, consequently, respect for differences. Another possibility is the production or implementation of a structuring project that spans the entire school year, with a variety of projects and practices to involve all students, teachers, other school staff and the family.

Regarding the ethnic-racial aspects mentioned in the previous paragraph, despite the existence of national legislation, Law 10.639/03 and Law 11.635/08, which obliges the discussion of these topics in schools, as well as in teacher training courses, what we see is that this theme is unfortunately not dealt with in both contexts. Or it is given an alienated focus, as we often see in many schools, which approach the subject through an annual event, such as Black Awareness Day. At this event, students wear what would be "African costumes", dance to the song *Mama África* by Chico Cesar in the main hall, take photos, post them on social media and create a slogan for the institution claiming to be a place that values differences. A fraud!

When drawing up the guidelines, we first argued that each and every decision made by the school should be based on democratic management, using all the instruments the school has (segments, collegiate actions, etc.). In this process, the school, as a training institution, has the role of promoting democratic management. Next, we believe that racism is a historical and cultural problem, so the school needs to adopt actions that are continuous, permanent and that permeate the students' education curriculum, because it is a formative issue and not just an isolated episode.

Given these circumstances, we propose the intervention project in these schools, which will become a permanent action developed in the institution, not limited to a one-off and temporary duration. Each cycle of the project will be made up of a specific theme and will last one year.

It is important to note that the project will be developed with the participation of all members of the school community (principals, teachers, other school staff, students and their families), through various activities developed in an integrated manner.

In this first cycle, considering the school context, the theme will be combating racism against quilombolas. Thus, the general objective for this cycle will be to propose interventions to combat racist attitudes and behaviors towards quilombolas. As the school is made up of members with different aims, this general objective was broken down into five specific objectives, as shown in the table below:

Chart 01 - Specific objectives of the intervention project

SCHOOL MEMBER	SPECIFIC OBJECTIVE
School Management and Pedagogical Coordination	To create the basic conditions for all the proposed activities to be carried out.
Teachers	To establish a teaching proposal with content, tasks and didactic and methodological perspectives that approach quilombola history and culture in an interdisciplinary way.
Students	To reflect on quilombola diversity, building attitudes and behaviors of respect and appreciation for socio-cultural differences.
Parents and other guardians	To contribute to the activities recommended by the school unit and thus promote attitudes and behaviors that respect quilombola people.
Other school staff	To take part in educational activities that seek to improve attitudes and behaviors among everyone about the specificity of quilombolas.

Source: Elaborated by the author

Initially, the school management should carry out a study of the students' profiles, using questionnaires. Next, organize and analyse the data, and then plan activities and actions. At the same time, the entire school community should have access to reflections on the issue, promoting the study of Afro-Brazilian and Quilombola history and culture, verifying distances and proximities between the different ethnic groups that may be present in the school. In this way, it will be possible

to produce strategies and procedures for the fight against racism that can favor the continuous training of teachers.

This will require textbooks and literary books, films, assignments, observation notebooks, and murals that should be shared among all the participants in the proposal. The analysis of the questionnaires on students' ethnic profiles should also be discussed. Therefore, six moments are proposed for the cycle, as described in the table below:

Chart 02 - Stages of the intervention project

MOMENTS	DESCRIPTION
Preliminary and diagnostic analysis	By analyzing the questionnaires completed by the students, the enrollment forms and preliminary conversations with their guardians, a profile of the students will be drawn up. Episodes of racism experienced at the school will also be identified. A period will be dedicated to presenting the results of this analysis to the teachers. At this point, all the teachers will be encouraged to record what they know about how racism is promoted and about Afro-Brazilian and quilombola history and culture. All the data will be organized and will form the basis for the pedagogical plans to be developed during the cycle.
The role of staff	All of the school's staff must take part in the proposal from the outset. A meeting will be organized with them to discuss the project that will be carried out in the educational unit. It's important to make it clear that everyone's participation and collaboration will be essential if the institution is to become a place that values and respects differences. Each member of staff will receive a list of observations to indicate what they can do to help with the project. The staff responsible for lunch, for example, could mention the elements of African and quilombola cuisine that have been disseminated in Brazil.
Participation of students' families	Questions about racism in the school environment should be put to those responsible for the students, so that they can talk about episodes of racism that they and their children have experienced. To this end, a questionnaire will be sent to their homes, so that they feel more comfortable recording these experiences. The data will be organized and presented to the members of the school council, so that all the points raised in the parents' responses can be discussed actively and in depth. This will enable strategies to be devised to combat racist behavior and attitudes. Meetings will be held with parents once a month, in which they can present characteristics of the culture of the ethnic group (community) to which they belong. In this way, they will be able to socialize some of the cultural practices of their social environment. In addition, the activities that the school will be carrying out to combat racism will be presented and, finally, the role of each person in preserving respect and living harmoniously with everyone will be discussed.
Deepening	Based on the analysis of the questionnaires that were applied to students, parents, staff and teachers, it is necessary to hold a meeting to deepen the

	reflections and studies with the school's pedagogical group, seeking to build a proposal through a work plan. Thus, when reflecting on the harassment of quilombola students, suggestions should be put forward to be experienced in the educational unit, such as studying the film " <i>O triunfo</i> " (directed by Randa Haines, released in 2006), and discussing the history and culture of the African people, as well as their importance in shaping Brazilian identity.
Selection and choice of content to be covered in the classroom	Based on the pedagogical coordination's recommendations, teachers should select and choose the subject content to be covered in the classroom, taking quilombola culture as a background. For example, the Portuguese teacher could work on building a Quilombola dictionary with words and expressions of African and indigenous origin that have been incorporated into Brazilian vocabulary. The math teacher, using ethnomathematics, can work with the mathematics of quilombola communities, as exemplified in the second cycle of this pedagogical intervention proposal. This time will be dedicated to planning lessons, reading books and texts, organizing tasks, etc. The teachers will then present their lesson plans to the rest of the class, receiving contributions from their colleagues.
Supervision	The activities carried out must be supervised by the professionals who make up the school's management. Throughout the development of the project, all reports from the school community should be recorded in an observation report, which should be made available to parents, teachers, students, staff, coordinators and managers of the educational unit. Students should also write down the important aspects of combating racism in their notebooks. If there are other episodes of prejudice and discrimination, meetings should be held and the planning of activities should be reviewed and refined. Throughout the project, dialog is the key to everything.

Source: Elaborated by the author

We emphasize that throughout all the stages, self-assessment will be an important tool, since any new demands that arise will have to be made by reflecting, reviewing planning and making the necessary additions.

4 The Continuous Training Proposal

As previously mentioned, we have put together a proposal for continuing education in Geometry with an anti-racist perspective for teachers who teach Mathematics in schools that may or may not be located in a quilombola community, but which are attended by these communities. It is important to mention that this activity can be used as an example of the moment "Selection and choice of content to be covered in the classroom" of the first cycle of the proposed pedagogical intervention.

The proposal covers various themes, such as quilombola school education, racism, mathematics education and geometry, based on Law 10.639/03, which establishes the guidelines and bases of national education, to include the theme "Afro-Brazilian History and Culture" in the official curriculum of the Education Network, and makes other provisions, in addition to CNE/CEB Resolution No. 8, of November 20, 2012, which defines the National Curriculum Guidelines for Quilombola School Education in Basic Education. These themes are underpinned by theoretical assumptions from Bell Hooks' Engaged Pedagogy and Ubiratan D'Ambrózio's Ethnomathematics.

The proposal presented and socialized in this text deals with Mathematics Education, considering racial aspects, with the aim of collaborating with the training of teachers who teach Mathematics in schools with curricula aimed at quilombola school education. It seeks to articulate the teaching of mathematics, Law 10.693/03 and the national curriculum guidelines for quilombola school education.

To this end, teachers will be able to find in this material a work proposal that can be used or adapted to the reality of their classroom. This proposal explores the relationships between Engaged Pedagogy, Ethnomathematics, racism and quilombola cultures, explaining the intersections between these themes, in an attempt to develop teaching and training methodologies that have good prospects for the implementation of Law 10.639/03 in the mathematics classroom.

Considering that, according to CNE/CEB Opinion no. 7/2010, "curricula should strive for inclusion, valuing differences and attending to plurality and cultural diversity, rescuing and respecting the various manifestations of each community", educating for ethnic-racial relations is both a duty and a collective responsibility that is imposed on each one of us.

With regard to the development of Geometry-related content, experiences should take place primarily in the subjects' relationship with the world around them, rather than from a formalist university Geometry per se.

In view of this, identifying and mapping the spaces in the community/territory in which the school is located, which make reference to African and Afro-Brazilian history and culture, is a possible pedagogical practice.

In this sense, it is important to think about how these spaces can interact with the school curriculum in order to promote an anti-racist math education that can contribute to the construction of new perspectives on "being in the world" of different subjects.

4.1 First Moment

First, the film "Quilombos da Bahia", which is hosted on YouTube, will be screened. This film shows several contemporary quilombola communities in Bahia, which represent resistance to historical racism in Brazil.

The aim here is to get to know the different quilombola communities in Bahia, seeking to verify similarities and differences in their cultural aspects, and to realize that this diversity is important for the recognition of their identities and histories. In addition, it will be possible to build a dialogue about how racism has been, and still is, present in the lives of quilombola people, who are generally excluded and neglected by the state, which denies or bureaucratizes access to essential rights such as education, health, basic sanitation, housing, land ownership, etc.

4.2 Second Moment

After discussing the film, the teachers will be organized into two groups to answer five tasks that address some concepts in geometry, combined with questions about racism. The tasks are presented next.

Based on the Common National Curriculum Base - BNCC (Brasil, 2018, p. 271 and 272, emphasis added), Geometry involves:

[...] the study of a wide range of concepts and procedures needed to solve problems in the physical world and in different areas of knowledge. Thus, in this thematic unit, studying position and displacement in space, shapes and relationships between elements of plane and spatial figures can develop students' geometric thinking. This thinking is necessary in order to investigate properties, make conjectures and produce convincing geometric arguments. In Primary School, students are expected to identify and establish points of reference for locating and moving objects, construct representations of known spaces and estimate distances, using maps (on paper, tablets or smartphones), sketches and other representations as support.

To prepare the tasks, we considered what is mentioned in the BNCC (Brazil, 2018) for teaching mathematics, since it is a mandatory document. In addition, there is no official national curriculum document, such as the BNCC, for quilombola school education in the area of Mathematics that could be used as a curriculum itinerary in the organization of this proposal. However, we do not disregard the existence of quilombola schools' pedagogical practices, based on a local curriculum drawn up by the community in which the school is located. Furthermore, considering that Geometry is one of the mathematical fields with the greatest connection to reality and attention to the different quilombola communities, we selected two objects of knowledge to be explored in the tasks:

- Locating objects and people in spaces, using different points of reference and appropriate vocabulary;
- Geometric transformations: translation, reflection and rotation symmetries.

Thus, taking into account Quilombola school education, the knowledge objects were adapted to:

- Locating and **moving** objects and people around **the quilombola community**, using various points of reference, direction and appropriate **meaning** and vocabulary
- Tasks 01, 02, 03 and 04;
- Geometric transformations in **the quilombola Cartesian plane**: translation, reflection and rotation symmetries - Task 05.

4.2.1 Task 01 - Drawing up maps

Learning objective: to understand the movement and location of people and objects in the quilombola community, using various representations such as drawings, maps, etc., using terms such as right and left, changes in direction and direction, intersections, crossroads, parallels and perpendiculars, as well as other terms from the community's vocabulary.

T1 – In the space below, draw the route you take from home to school. Then explain how you get there.

a) Have you ever suffered any violence during your journey? What was it like? What was it like?

b) Have you suffered or witnessed any racist situations during your journey? What was it like?

c) Can you move around peacefully during this journey? Are there any restrictions?

Comment to the teacher: in this task, the student will be able to make transformations between mathematical representations. For example, they will change from natural language (the question) to a graphic representation (the map) and vice versa. By asking about racism, they will be able to locate the points on the map with the highest frequency of this type of violence. The idea is not to embarrass those who have suffered such aggression, but to raise the issue that no one should be abused for being a Quilombola person and should not be prevented from moving around their community.

4.2.2 Task 02 - Spatial direction and sense

Learning objectives: to interpret, describe and represent the location or movement of people and objects in the space of the quilombola community, using Cartesian coordinates, indicating changes of direction and turns.

T2 - For the task, the class should be organized into pairs. One person will be led by their partner, the guide. The coach will stand behind the student and manage the movements as follows: one touch on the back should go forward, one touch on the left shoulder should go left, one touch on the right shoulder should go right, two touches on the back should go backwards, one touch on the back of the head should stop. Then swap the roles of the pair, guide and the one being guided.

Questions for the pairs:

- a) Did you move around the whole school? All the spaces?
- b) Which spaces did you walk through? Explain why.
- c) Which spaces didn't you go to? Explain why.
- d) Are there any places in the school that you weren't allowed to enter? Which places? Why?

Comment to the teacher: in this task, students will be able to experience a practical activity about location and movement in one of the community's spaces, which is the school. For example, when moving around in a certain environment, they can think about whether or not they can move around in it. In the case of restrictions on access to certain environments, ask yourself why. Is this restriction a "legacy" of colonization and racism? Is there a control of quilombola bodies? The aim is to reflect on the fact that no person should be prevented from moving in any space because they are a quilombola.

4.2.3 Task 03 - Mapping community spaces

Learning objective: to map out the different areas of the quilombola community according to points of reference and to indicate changes in direction, using local vocabulary.

T3 - Activity orientation:

a) Coordinate a community tour for the class, so that students can perceive and recognize the places near the school and/or community that are relevant to African history and culture, as well as Afro-Brazilian, quilombola and indigenous aspects. Among these spaces, we can highlight: houses or centers of religions of African origin, cultural centers, popular art and culture groups such as dance, music, theater, etc., capoeira groups, flour houses, indigenous villages, monuments (material culture), non-governmental organizations, among others.

b) When you return to the classroom, ask the students to list and map the areas they have identified, with the school as the center of reference. The maps of these areas can also be drawn up together.

c) Reflect with the students on the results of this field trip and ask them if, when they look at the different areas of the school (corridors, murals, posters, classrooms, library, toilets, etc.), they notice that different people and ethnicities in the school community are represented in the educational unit.

Note: remember to take photos with the class of the different places that make up the community. This will be important for Task 05.

Comment to the teacher: through a reflective debate with the students, it is recommended to reorganize the school areas, since it is fundamental to reflect the school unit as a place of coexistence, where different learning situations and spaces are made available to the students. Therefore, when they experience these environments as occasions to build the foundations of citizenship and democracy, the school becomes fertile territory for facing the adversities arising from the countless subjectivities of difference that we experience in the social environment and in the school context, among them, we highlight the ethnic-racial, cultural and gender dimensions. Actions that develop pedagogical and ethical attitudes towards diversity are the responsibility of schools and must be integrated into the institutional curriculum proposal.

4.2.4 Task 04 - In search of a spatial path that respects all quilombola people

Learning objective: to understand the displacement and location of LGBTQIAPN+ quilombola people in the community space, by reflecting on the construction of spaces for inclusion and social justice.

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Figure 01 - Poster for the Anegrar Campinas dialog cycle



Source: https://www.youtube.com/watch?v=T_dQOT8kVBM&t=467s

T4 - Based on an analysis of the LGBT+ Intersectionality video "*In diversity, build Quilombos!*", reflect on the paths and spatial orientations that LGBTQIAPN+ quilombola people can take in today's Brazilian society.

Comment to the teacher: in this task, students will be able to reflect on the violence suffered by quilombolas and LGBTQIAPN+ people, and how these concepts intersect. It is important to problematize that these people should not be prohibited from moving around or moving in certain spaces due to their complexities. And that, in Geometry, spaces belong to everyone and that restricting them is a product of colonization.

4.2.5 Task 05 - Geometric transformations in the quilombola Cartesian plane

Learning objectives: to recognize and represent figures obtained by composing geometric transformations (translation, reflection and rotation), using drawing instruments and photographs.

T5 - While visiting the different spaces that make up the community, take photographs of the buildings: houses, plantations, flour houses, churches and animal housing.

First: identify the geometric shapes represented in the spaces visited.

Second: based on the photos, trace the axes of symmetry, reflection, rotation and translation in the images represented.

Comment to the teacher: using the photos, ask the students to draw pictures of the places depicted; this can be replaced by printing out the photos. Using the photo or drawing, guide the class through geometric transformations (isometries).

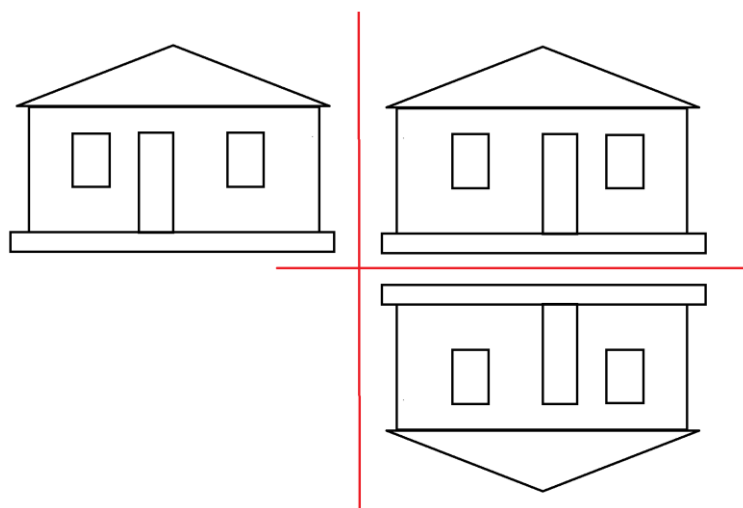
When discussing symmetry, it is important to question whether it is possible for there to be an axis of symmetry for all places, objects and geometric shapes. This is important to avoid the idea that everything can be symmetrical, which is not true. Symmetry only exists if the two geometric shapes formed from an initial shape are congruent with each other. And if that doesn't happen, it's okay.

Example: given the photo of a residence in the quilombola community of Rio das Rãs, Bom Jesus da Lapa (Photo by Tacun Lecy, available at: <https://www.centraldalapa.com/quilombo-rio-das-ras-em-bom-jesus-da-lapa/>), we draw an axis for reflection.

Figure 02 - Axis of reflection established from a Quilombola community residence



As a possible answer, we can get:



Source: Elaborated by the author based on a photograph by Tacun Lecy

The photos, if printed, could be used in an exhibition at the school. As a suggestion, this activity could be called "Getting to know the Geometry of our community".

5 Conclusions

Often, students act on a set of references that they have built up outside of school. It is therefore essential that the educational unit takes permanent joint action, involving family and school in this process of raising awareness, which does not happen immediately. This requires long- and short-term measures, which can involve students in discussing the subject and reading books that deal with these issues.

Bringing in testimonies, legal issues, discussing various elements of social reality that deal with racism and measures in this regard are of great importance for the school to be able to define ongoing, permanent and diversified actions that make up an intervention project.

In the short term, a cinema session could be set up to show films dealing with this issue and promote film debates. In addition, there could be lecture series with people from different spheres (religious, legal, organizations) and people from the community itself, who could give testimonies and give talks to the students themselves.

We believe that this theoretical proposal for pedagogical intervention will promote a reduction in racist attitudes and behavior at school among the school community (students, teachers, managers, etc.). This is justified because by recognizing themselves as a historical and cultural subject, marked by differences, students will come to accept and respect others, who also have specificities. They will then be aware that diversity is an element that is part of the formation of the Brazilian people, and that it should be valued and respected.

In the case of the tasks proposed in the continuing training of teachers who teach mathematics, they can be adapted and worked on with the classes of these professionals in quilombola communities. Thus, the tasks, combined with the concepts of Geometry and Racism, make up didactic material to support teachers, who carry out important work in training people, with significant impacts on the social environment.

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