# ENVIRONMENTAL EDUCATION IN THE INDIGENOUS SCHOOLS OF BRASIL

### EDUCAÇÃO AMBIENTAL NAS ESCOLAS INDÍGENAS DO BRASIL

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#### **ABSTRACT**

The environmental education applied within indigenous schools, flowing from categories of fundamental rights overseen in the current Brazilian Constitution, deserves a great deal of reflection and attention by Brazilian educators. Besides promoting the specific elements proper to schools, they should be aware of the root principle of an environmental education shared by indigenous peoples, being the grounds for other equally relevant sub-principles which demand the involvement of the whole community: the promotion of interculturality, transversality and flexible approaches to environmental education in indigenous schools' syllabuses, undertaken by children and young natives who require a methodology which is more tuned to their social dynamic and, above all, linked to the natural world. This quality of environmental education upholds a view of the sentiment of fraternity, which we should share equally with present and future generations.

Keywords: Brazil. Environmental Education. Indigenous School.

#### **RESUMO**

A educação ambiental aplicada nas escolas indígenas, decorrente das categorias de direitos fundamentais previstos na atual Constituição Brasileira, merece muita reflexão e atenção por parte dos educadores brasileiros. Estes, além de promoverem as especificidades que lhes são próprias, devem estar atentos ao princípio matriz de uma educação ambiental compartilhada pelos povos indígenas, sede de outros sub-princípios igualmente relevantes. Esses exigem o envolvimento de toda a comunidade; promoção da interculturalidade, transversalidade e flexibilização de uma educação ambiental no currículo das escolas indígenas, protagonizadas por crianças e jovens índios que requerem uma metodologia mais afinada com a sua dinâmica social e principalmente vinculada às coisas da natureza. Educação ambiental dessa qualidade não perde de vista o sentimento de fraternidade que se deve compartilhar tanto com as nossas presentes e futuras gerações.

Palavras-chave: Brasil. Educação Ambiental. Escola Indígena.

#### 1. INTRODUCTION

Article 205 of Brazil's Federal Constitution attests an elevation of the right to education to the *status* of public subjective law, whose fulfillment dismisses any type of refusal by part of the State. The guarantee of the right to education *per se* is insufficient, raising the necessity for parallel actions which allow the conditions for students to arrive at school and to be maintained there, besides ensuring quality teaching (SOUSA, 2010).

The right to education, pertaining to the order of fundamental rights, distinguishes itself as a right, which surpasses the system even on the national level, having repercussions in international forums where the National States assume the responsibility of carrying out such rights as universal human rights. This position was confirmed by Robert Alexy in a speech given at the House of Rui Barbosa Foundation, Rio de Janeiro, on the 10th of December, 1998 (SOUSA 2010).

In this same line is the fundamental right to a healthy and ecologically balanced environment, guaranteed by Article 225 of the same Federal Constitution, and intimately linked to life. Every human being has the right to live in a healthy environment as spelled out by the United Nations Commission on the Environment on the 4<sup>th</sup> of September, 1997, in the city of Strasbourg (MACHADO, 2005).

Under the perspective of these two categories of fundamental rights, indigenous peoples require more attention than ever for two main reasons: (a) for being minorities with insufficient economic conditions and who are historically put down by public policy; (b) for living in frontier biomes of what are culturally preserved natural resources - according to recent studies done on the Brazilian Amazonian Forest - now national patrimony in the terms of the Federal Constitution.

An indigenous education associated with a duty of public conscientiousness towards a preserved environment, is an issue, which requires great reflection and special treatment on the part of Brazilian educators.

In this way, this paper presents a constitutional systematic interpretation, focused on the literature, in order to perform a comparison with the reality. Literature review considered the main juridical, socioenvironmental and anthropological authors of Brazil. It is important to remark that there is a lack of knowledge in this area. Few authors explore this subject and all the juridical interpretation presented in this paper is a result of the research process. In the end, to illustrate the differences between theory and reality, is related an interview with a member of Boa Vista Bureau of Indigenous Education, about the educational experience of Roraima.

The paper presents a top-down structure. It starts from the indigenous education in Brazil, and discuss the shared role of State and community related to the educational indigenous process. Points out the characteristics of interculturality and the necessity of the methodological adaptation of environmental education in the curriculum of indigenous school are necessaries. The indigenous education peculiarities are presented through the point of view of its protagonists (children and young indigenous), to allow a comparison with the case of Serra da Moça (Roraima), where it is possible to identify the differences between constitutional rights and reality.

#### 2. INDIGENOUS EDUCATION IN BRAZIL

Historically, indigenous peoples were victims of prejudice and ignorance; observable today is that indigenous peoples are squeezed into small territorial bases and subdued by universally applied policies which refuse to take notice of such minorities, these minorities almost always being submitted to the interests of the dominant ethnic group (SILVEIRA, 2008).

It is from this point of view that the discussion surrounding human rights and legislation for indigenous education needs to be analyzed, the reason for which Fernando Sarango (jurist and

linguist from Ecuador, leader of the National Confederation of Indians in Ecuador) writes that the Latin-American States, when they provided their constitutions, simply forgot their indigenous peoples. This same discourse was confirmed by Souza Filho (1998) when he registered that in Latin America there is not a single country that can be said to be composed of a single people, perceivable in all of them an immense cultural diversity, where each population maintains its idiosyncrasies and social and juridical organization with intensities which vary from one region to another.

Analyzing the relations between National State and the indigenous peoples in the formation of Brazil, one perceives two tendencies, which have permeated the historical process of this intersection: the process of domination (by way of integration) and cultural homogenization. In recent decades the recognition of cultural diversity in the country has arisen through indigenous peoples' struggles against values unilaterally established by Western society (OLIVEIRA e FREIRE, 2006).

Even when it recognizes certain forces at play, there are still many juridical, sociological and philosophical trappings to be overcome. Even preliminary discussion is still quite dense. It is through this density that old-fashioned concepts on the unitary state arise until we come to the more contemporary ideas on whether or not a radical break from currently institutionalized systems is viable.

It is not possible to advance from the pedagogical point of view without there being rigorous dialogue with the indigenous peoples and with their formal representations. This formal interrelation, which must be maintained principally with the State bodies, assumes a social, economic and political contextualization, needing to stick close by the current reality of these peoples.

Nor should it forgets that in Brazil indigenous education was responsible for the first steps towards the public school, being in the hands of the Jesuit priests – at that time led by Manuel de Nóbrega - when they were brought to the Portuguese Colony by the first Governor-General Tomé de Souza in 1549. The objective of the Jesuits was – in compliance with the Regime of 1548 – to stimulate indoctrination so that the indigenous could be converted to Christianity (LIMA, 2003).

But the great constitutional mark of indigenous education in Brazil was definitively struck by the Constitution of 1988 (BRASIL, 1988), where the indigenous peoples conquered the recognition of their forms of social organization, their languages, beliefs and traditions, guaranteeing the use of mother languages and distinct learning processes in school education.

The Federal Law no. 9.394, established in 1996 (BRASIL, 1996), also ensures the right to an education, which is differentiated, specific, intercultural and bilingual. In this way the survival of ethnic groups is guaranteed, allowing Brazil to pay back the social debt to these peoples. The legislation referred to ensures further still the autonomy of schools in their pedagogical and administrative aspects, guaranteeing full participation of indigenous peoples in school management.

With such measures, it perceives indigenous education in our country progressively gains significant advances in the area of posterior regulation. Since the laws and the recognition of the necessity for a specific, differentiated and quality education have finally been laid down, the implementation of such policies are truly necessary in practice, for it musts aim to effectively sustain these hard won legal advances as imperatives.

On this point it emphasizes the initiative of the Ministry of Education which, from 2005 onwards, created the National Curricular Reference for Indigenous Schools, a project which ended up involving the experience of the Secretary for Continuing Education, Literacy and Diversity, as well as the Department of Education in Diversity, with the active participation of the Headquarters for Indigenous School Education.

#### 3. ROOT PRINCIPLE OF A SHARED ENVIRONMENTAL EDUCATION

Indigenous education will only be efficient, from the point of view of the formation of values and learning, when in fact the organization of the school is appropriated by the indigenous, from the administrative to the pedagogical aspects. As long as the indigenous school is imagined solely by education's contemporary intellectuals who do not know about the culture and conceptions of life of those peoples, the divergences in pedagogical points of view will be permanent.

For this reason it defends an indigenous educational model adapted by each people in the light of their cosmology and in the molds of their relationship with the environment, since the territories traditionally occupied by indigenous are essential for the preservation of environmental resources necessary for their well-being according to use, customs and traditions.

Baniwa (2006) relates understanding on indigenous education with the understanding of the life cycle, which is marked by actions of communitarian learning. The basic teachings, which reverberate from this social co-existence, are moral, spiritual, and made of the collective action integrated with nature. The passage to the adult phase of life occurs with the assessment of the character and virtue of young indigenous. Adults assume the compromise of passing knowledge to the children. The responsibility to educate is of the community, increasing the possibilities of human formation and maintenance of traditional knowledge associated with nature.

In this way, for indigenous peoples education is not confused with the concept of school. Baniwa (2006) reveals that the school is not the only place for learning. It is a way of organizing some types of knowledge to be transmitted to people by way of a teacher. To them, school is not solely constructed on buildings or student notebooks; ideally, knowledge and know-how extracted from nature take part in this process.

The articulation with the indigenous peoples for the construction of differentiated educational projects is their right, representing the guarantee of the maintenance of a conception of communitarian education devised on their belonging to nature.

Territory (or nature) has become more of a differentiated pedagogical instrument and of great importance for the context of indigenous education, since their territorial base represents the history of the lives of ancestors, constituting itself in the sacred place of nature's beings and the *habitat* of gods. In it one also keeps the knowledge, the traditions and the particular values of each people.

In this way, the concept of territoriality embraces a pedagogical possibility which is to be valued. There is a lot to teach children and young indigenous about the place where they live. Beyond the history of their ancestors, the use of medicinal herbs, religious rights, and the life cycles of animals and plants are concepts constructed from lifeways on home soil.

By adding pedagogical wealth from learning-by-doing and by living this out in the school curriculum it becomes possible to maintain the unity of each people by links of identification to nature itself. This dimension of knowledge represents just one of the pedagogical opportunities which should be shared amongst children and young Brazilians, independent of their being indigenous or not.

In this context, pedagogical orientations scheduled by the National Curricular Reference for Indigenous Schools in Brazil were constructed, bringing about important discussions on the construction of the *curricula* for educators and for the community in general, focusing on transversal themes which came to offer themselves in the following six categories: the earth and the conservation of biodiversity; self-sustenance; rights, struggles and movements; ethics; cultural plurality; and health and education.

Limiting our scope to the themes "earth and conservation of biodiversity" and "self-sustenance", we direct ourselves towards some sub-principles which we take as natural derivatives

of the root principle of the conception of an environmental education shared by the indigenous peoples.

#### 4. ENVIRONMENTAL EDUCATION IN INDIGENOUS COMMUNITY

#### 4.1. Involvement of the indigenous community in environmental education

The involvement of the community and principally the families of students in the construction of the pedagogical project of the indigenous school with socio-environmental roots is another factor of fundamental importance. The participation of indigenous leaderships in the construction of this process is not enough. It is necessary the engagement of the parents of each student at the school. In many cases, we perceive that the indigenous leaderships possess absolute conviction with regard to the educational model, which will be important for children and young indigenous, but that the families themselves do not share the same ambitions.

As mentioned above, all persons within the community should take up this discussion. We cannot dialogue on the model of indigenous school education solely with the leaders who are already convinced that this is important for them. It is necessary to dialogue with all people, leaders of the community or not, women, children, and the elderly.

Such discussions will need to be led by qualified people who are capable of utilizing, above all, resources of environmental language and examples of lived experiences of sustainability, which affect the majority of the indigenous communities. Normally the qualified people will be those who have little formal schooling.

The proceedings of such workshops must be regulated to diminish the barriers in the communication of ideas, and aim to include the participation of all those affected. The excess of technical language – especially that which originates in environmental issues – could be seen as very distant, incapable of reaching the objectives of an understanding which will nourish a critical and constructive conscience.

#### 4.2. Environmental school interculturality

*Intercultural*, in its conception, clarifies the cultural richness, which it shares with all the cultures it has access to; as much as it clarifies the impossibility of its annulment, or of any type of weakening which could occur in the relationship it entails. All educators – whether it is involved with the indigenous cause or not – should be deeply concerned with organizing and making viable, within the universe of schools, this process between indigenous culture and the culture of the society which surrounds it.

However what lies behind the intercultural question and what is intimately linked to environmental education concerns the knowledge and the sharing of values defended by each people, chiefly those associated with nature, starting with the premise that much of the technology developed by the society which surrounds them had as its shortcut in research traditional indigenous knowledge. Without a doubt there are uncountable examples of this in the cosmetic, pharmaceutical and food industries.

In this process of exchange of information typical of civilization's development, the indigenous peoples will also be guaranteed access to the most elaborate technological mechanisms, such as computer equipment, telephones and other ways of transmitting and capturing data; and the indigenous schools should become catalyzing centers in the proliferation of such technologies, so important in monitoring environmental impacts.

## 4.3. Transversality and flexibilization of environmental education in the curriculum of indigenous schools

To break with the paradigm of following content historically established by the standards of formal education in the traditional Brazilian school is a long and difficult process, but which is necessary for the indigenous peoples who can now incorporate in all levels of teaching their knowledge of environmental preservation, as they were authorized to do in Article 225 of the Federal Constitution.

This transversality is at the core of the way of life of the indigenous and should pass through all disciplines and all organization of new knowledge, observing that such a target can come to consider a greater organizational more flexible approach to the indigenous school.

From the moment it accepts the differences and specifications of indigenous education, it needs to operate actions, which are different from the conventional ones. It is important to consider that it has not been the students who have made the changes impossible, but the schools. If it proposes to restructure the school through the curriculum, the posture of collective construction of the school concept, the possibilities of learning between traditional knowledge and its interaction with new technologies and current scientific knowledge linked to the environment, also it needs to re-think the organization of the school as a whole.

The transversality of the discussion on the environment passes through essential elements of pedagogical practice in schools such as: the role of each subject who confronts the collective use of natural resources; the respect for knowledge associated with nature, which is verbally transmitted between peoples; the establishment of school norms which do not necessarily permit a unilateral relation between teachers and the school calendar; indigenous peoples' relationship with the seasons; period of work in the field and religious ceremonies; hunting periods, and so many other peculiarities tied to each people.

Having established this, it can clearly be seen that indigenous school education should accompany the rhythm of life of the people, conforming to time and place parameters dictated by the laws of nature, and the way each of these civilizations tend to perceive these phenomena.

#### 4.4. Children and young indigenous as protagonists in environmental education

If we consider the ecologically balanced environment as juridical patrimony, which deserves to be defended by all and to be offered to present and future generations, undeniably those who benefit from this legacy will have to be incited to actively participate in this task. Not only because of the encouragement of adults and parents should children and indigenous young people be stimulated to assume, within their schools, protagonist roles within the ecological movement.

The historical process of cultural degradation to which the indigenous people were submitted has left deep scars. It is common to find inside these same indigenous communities generations of fathers and sons who have dreamed of life beyond the community, inside a dream of total integration in an emerging society, as the only possibility of a dignified existence.

To regain the trust of these subjects, demonstrating that through education it is possible to dream of new possibilities of a better life inside their own community, sustainably exploiting natural resources and adding value to them, is a process which demands dialogue and the development of specific skills coming from a school of quality which is technologically structured.

To use the school to develop the competencies and specific skills for the formation of the environmentally conscious subject who will redesign its own history in a process of reconstruction of indigenous identity will be an arduous trail for education to follow. Strengthening in children and in the young feelings of pride and their belonging to an indigenous people - intimately linked to the elements of the earth - will only be possible through a school adapted to this new reality, conformed to the aforementioned fundamentals and based on the methodological parameters which follow in the next item.

#### 4.5. Methodology of environmental education in indigenous schools

Before a methodological consideration of the indigenous school it is necessary to observe the dynamic of indigenous education. Within the community it has "learning-doing" children through observation of nature's phenomena inside the behavioral model established by adults. In this quotidian dynamic within the community and in terms of intimate involvement with the elements of the environment, each subject has their role and all learn that they must be useful for the sustainable development of their respective society. In this boom of enthusiasm, the school must establish its methodology within the same principles as a guarantee of the process of integral education of the indigenous subject.

The planning of differentiated activities coherent with the environment is the most adequate path for the integral education of the subject to be consolidated. The indigenous school's pedagogical action passes through a work process with collective and collaborative bases, meeting the environmental expectations and perspectives of its own community.

To resolve the relationship between learning theory and environmental practice on the everyday level of the students is a challenge which must be articulated principally from the texts used in teaching, where the debates should be created and organized in a way to be understood by all, for it is unacceptable that indigenous schools use printed material which present issues directed towards the society which is beyond the learning context when these books are used as the only instrument for learning.

It is more coherent to re-work a pedagogical conception, which becomes the basic premise for the indigenous school, thereby allowing a diversity of pedagogical material and, notably, pedagogical practices. The classes will have to be conducted in the ambience of the community, in direct contact with nature, alongside the habits and customs of the indigenous peoples.

The surroundings of the community are also characterized as an important pedagogical instrument, and the inter-relationship with the issues of the society involved will be able to occur by concrete lived-through situations, not only by the manipulation of teaching materials. In this sense, it is worth considering that the use of didactic material traditionally elaborated by non-indigenous authors – and who carry with them a conception of the school thought of from a context differentiated from that which is proposed for indigenous peoples – evidently becomes unnecessary.

#### 4.6. The example of indigenous land of "Serra da Moça" (Roraima)

In order to illustrate the relation between Brazilian legislation and the indigenous environmental education practiced in most of indigenous lands of Roraima, it was performed an interview with Liliana Maria Soares de Oliveira, member of Boa Vista Bureau of Indigenous Education, in March, 13th of 2014. The informer reported an emblematic case of an indigenous school located in "Serra da Moça" (50km from Boa Vista).

During the interview, it was mentioned that the Indigenous Land of "Serra da Moça", State of Roraima, Brazil, was created in 1973 and homologated in 1991, for three indigenous communities: "Truari" (*wapichana*), "Morcego" (*macuxi*) and "Serra da Moça". Nowadays, there is one more early community named "Anzol".

The indigenous schools in "Serra da Moça" do not offer a differentiated education (as expected). The learning program of this school is the same as the ordinary schools in the rest of the country. In this case, it has been offered a complementary indigenous education, involving the study of native languages *macuxi* and *wapichana*. These languages have the same number of classes that the ones taught in Portuguese.

Native languages, as mentioned above, are offered after basic education, to teens between 15 to 17 years old in average. These classes have about 180 students. The choice of the language (macuxi or wapichana) is free, and is observed some cases of indigenous of the ethnic group macuxi that prefer to study wapichana and vice-versa. It is important to remark that native languages were

almost forgotten in this indigenous land and the students, in most of the cases, do not speak them currently outside school. It was observed that the language learning process forces the indigenous to contact their own cultural heritage. In addiction, the students learn traditional agricultural skills during the 7th year and the products of these classes are consumed at school.

When indigenous turn 16 years, they are given the right to vote during decisions-making processes at communitarian and inter-communitarian meetings. Students participate and record these events (with cell-phones) and discuss its subjects with other students at school. It is important to note that indigenous teachers must participate of these meetings as demanded by the communities. Most of teachers are communitarians of "Serra da Moça" who studied at Federal University of Roraima.

In synthesis, the main role of the school in indigenous land "Serra da Moça" is to contribute to the "cultural rescue" of the communities who lost their traditional culture due to the proximity to Boa Vista (Roraima capital city).

#### 5. CONCLUSIONS

As it has seen, it has at its disposition efficient normative instruments to in fact promote an applied environmental education in the indigenous schools of Brazil, without needing to intervene with other legislative authorizations, which come along to break apart the paradigms of the former and formal conception of the national style of schooling.

However, consistent obstacles of the managerial/methodological kind rise up against the effective application of constitutional will brought about much more by its difficulty in understanding and relating to indigenous peoples than by legal authority.

This rupture with that arbitrary and homogenizing system, as seen in "Serra da Moça" case, makes itself necessary beginning with the conception of an open and democratic school, above all respecting social organization, customs, languages, beliefs and traditions of indigenous peoples.

Into the twenty-first century, it no longer develop competencies and skills solely through the formal school, and citizens gain their form of knowledge beyond the unilateral mode. Perhaps inside the lush harvest of environmental education it will find the best way to understand such transformations and challenges. The thirst for this special form of knowledge has been ventilated in plenaries of the Federal Supreme Court again and again, especially to remind us of the forgotten principle of fraternity, not only in relation to present generations, but principally in the face of those to come.

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