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Escola Vila and Ecosystemic Pedagogy: Living the Earth Charter Principles



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Ecosystem Pedagogy and the Curriculum Web

The Escola Vila was founded in 1981 in the city of Fortaleza, in the state of Ceará in the northern Brazil. It was developed with the goal of providing a differentiated education, one that broke with traditional paradigms to form critical, fair, happy and creative human beings who are actively engaged in exercising their citizenship in different socio-environmental contexts.

Throughout its existence, the Ecosystem Pedagogy was elaborated and systematized, as a result of an innovative and unique experience of our school practice. Its theoretical foundation is based on the thoughts of influential thinkers such as Paulo Freire, Edgar Morin, Jean Piaget, Fritjof Capra, Humberto Maturana and Ubiratan D'Ambrósio and other thinkers focused on new educational trends. One trend that is considered essential to this pedagogy is transdisciplinarity.

It is undeniable that the separation and generation of knowledge by disciplines has contributed and continues to contribute to the evolution in several areas (such as natural and social science, language, history, philosophy, humanities, etc). However, it is now necessary to question this logic of separating knowledge into disciplines that do not communicate with each other. Instead, it is necessary to teach and learn how to interconnect the multiple knowledges present in our complex reality.

To do this, we must go beyond interdisciplinarity work, as it relates one discipline to another, because it does not

teach the meaning and applicability of the curriculum in life and specific contexts and situations. Thus, for us, transdisciplinarity is both a part of, but also beyond, disciplines because life itself is transdisciplinary.

The Ecosystem Pedagogy is, therefore, based on complex and interconnected values, promoting the interrelation between knowledge, subjects and reality. It takes place based on six points: coexistence in diversity, authorship and leading role, socio-environmental action, implication and contextualization and creativity with criticality.

From this perspective, the school space should not be merely a place for teaching disciplinary subjects with no practical use, required only to pass tests and be forgotten later. Rather, the school must be the foundation for the development of citizens who seek knowledge in order to interact and act in the search for solutions and alternatives aimed at an egalitarian, fraternal and sustainable society. The experience at Escola Vila proves that it is possible to teach children to read and write without having to spend many hours in the classroom; however, it requires teachers to abandon the idea of "teaching classes." In our ecosystemic perspective, a class is the result of the experience and knowledge that all people involved in the school community already have or are open to experiencing and building.

Inspiration for the Ecosystem Pedagogy came from several documents, such as the "Universal Declaration of Human



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Rights", "the Seven Necessary Knowledges for the Education of the Future", "The Transdisciplinary Charter", "The Federal Constitution", "The National Common Curriculum Base" and "The Earth Charter". They are fundamental texts for the practice of Escola Vila which aims at an education with an integral approach to the human being.

The ecosystem curriculum proposed by Escola Vila goes beyond the archaic concept of a "curriculum grid" and proposes in its place, a "curricular web" composed of three interrelated conceptual maps:

1. The web of the individual's relationship with themselves.
2. The web of the individual's relationship with the social environment.
3. The web of the individual's relationship with the environment.

Our greatest challenge was to move away from the curriculum and work with disciplines to develop a curricular web. The "curricular web" starts from the principle that we are part of the environment, which in itself is a reflection of our actions. Therefore, we are co-responsible for building our own reality, and should act intentionally with care for individuals, society and nature. Thus, as the Earth Charter states, "our environmental, economic, political, social, and spiritual challenges are interconnected, and together we can forge inclusive solutions" [The Earth Charter, 2000].



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The Collection: Caring for Planet Earth

At Escola Vila, the principles of the Earth Charter materialize through transdisciplinary didactic material developed for each grade level. The Collection Caring for Planet Earth is made up of six portfolios and organizes its curricular and pedagogical approach through projects, where a common theme interconnects all disciplines and works throughout the entire school.

The contents of these materials are developed in a contextualized way, through experiences, research and discussions. The Collection Caring for Planet Earth allows the student to experience the applicability of the content and knowledge acquired, as well as their ongoing reconstruction and re-signification, seeking the formation of critical human beings and the construction of a less fragmented and mechanistic society.

Collective activities are proposed in each class, valuing the importance of cooperative work and discussions, whereas converging and diverging points of view are considered for the construction of knowledge. In this way, students are the leading actors in the learning process, and the contents are considered by teachers as tools for understanding reality.

Project 1 – The Person in the Social

In this project, students learn about the Elderly Persons Statute by visiting institutions that care for the elderly and carrying out a solidarity campaign and collecting food and toiletries for donation. The culmination of the project is a great Reunion of Generations with music and games and involves the entire school community as well as the elderly from the collaborating institutions. The project objective is to cultivate fundamental values for living together in harmony with others like respect, love and solidarity



which are directly linked the Earth Charter, including Principle 2 which states, “care for the community of life with understanding, compassion and love” and Principle 15, “treat all living beings with respect and consideration.”

Project 2 - The Person in the Discovery of its Values and its Roots.

In this project, students undertake research on indigenous nations, quilombolas (1) and colonizers and learn about their customs, traditions and spiritualities, valuing each one’s contribution to our nation. There are also visits to traditional communities and historical museums. At the end of the project, the reunion of cultures takes place with the participation of representatives of these cultural groups, in addition to the entire school community.

The objective is to remember our history, recognize our roots and the values of the peoples that preceded us, especially Indigenous people.



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The purpose here is in line with the Earth Charter Principle 12b. that says it is necessary to “affirm the right of indigenous peoples to their spirituality, knowledge, lands and resources and to their related practice of sustainable livelihoods.”

Project 3 – The Person in Nature

In this project, students visit parks, dunes and rivers; interview locals; research endangered animals; and study real estate speculation responsible for environmental degradation; waste management and conscious consumption. They hold demonstrations, marches and write to administrators of public departments and authorities offering suggestions to preserve nature.

The culmination of this takes place in the first week of June when the World Environment Day is celebrated. A seminar is organized to present the results of the research conducted by the groups to local public managers and environmental experts, with whom together they look for solutions.

The goal of this is to develop awareness that we are part of nature and are connected to the entire universe. All the work done during the project seeks to implement Principle 8 of the Earth Charter, which states that it is necessary to “advance the study of ecological sustainability and promote the open exchange and wide application of the knowledge acquired.”



Project 4 – The Person and Tradition

In this project, research on our traditions is deepened including June folk festivals, "cordel literature" [2], "parlendas" [3], stories told from generation to generation, songs, popular myths, riddles, popular proverbs, tongue twisters, games and all the wealth of folklore that must always remain alive in the memory of our people. The culmination happens on Folklore Day and includes party to present the research results through dances, exhibitions and games.

The objective is to research and study the history of colonization, the mixing of ethnic groups, Brazilian cultural traditions and spirituality, all of which aligns with Principle 8b. of the Earth Charter which states to "recognize and preserve the traditional knowledge and spiritual wisdom in all cultures that contribute to environmental protection and human well-being."

Project 5 – Guardians of the Planet

In this project, kindergarten and elementary I students are divided into eight thematic areas [Recycling, Communication, Education, Fauna, Flora, Housing, Health and Food], about which they carry out research, interviews and studies related to these themes according to their grade level. Elementary II students are responsible for researching and discussing politics, taxes, the economy and social movements. The culmination of this is the Seminar Caring for Planet Earth, in which the results of this work are presented, highlighting questions and demands of each theme and includes a show performed by kindergarten children's artwork. The objective of this project

incorporates several principles of the Earth Charter, serving as a guide to the Guardians about how to both meet the needs of the present and the future of the planet. For example:

Recycling: "Reduce, reuse, and recycle the materials used in production and consumption systems, and ensure that residual waste can be assimilated by ecological systems" (Principle 7a).

Communication: "Enhance the role of the mass media in raising awareness of ecological and social challenges" (Principle 14c).

Education: "Integrate into formal education and life-long learning the knowledge, values, and skills needed for a sustainable way of life" (Principle 14).

Fauna: "Prevent cruelty to animals kept in human societies and protect them from suffering" and "protect wild animals from methods of hunting, trapping, and fishing that cause extreme, prolonged, or avoidable suffering" (Principles 15 a-b).

Flora: "Manage the use of renewable resources such as water, soil, forest products, and marine life in ways that do not exceed rates of regeneration and that protect the health of ecosystems" (Principle 5e).

Housing and Food: "Guarantee the right to potable water, clean air, food security, uncontaminated soil, shelter, and safe sanitation, allocating the national and international resources required" (Principle 9a).

Health: “Ensure universal access to health care that fosters reproductive health and responsible reproduction” and “adopt lifestyles that emphasize the quality of life and material sufficiency in a finite world” [Principles 7 e-f].

Project 6 – Building a Better World

The objective of this project is to work with and deepen the understanding of the Universal Declaration of Human Rights, The Seven Necessary Knowledges for Education, the Federal Constitution, the Charter of Transdisciplinarity and The Earth Charter as necessary instruments for building a better world. After studying, researching and experiencing the Person as a Whole and carrying out the Guardians of the Planet Project, students have the awareness and the tools to exercise their citizenship in nurturing and putting into practice essential values for the survival of humanity, through social agency supported by laws, declarations and statutes. Through social actions,

activism and community service students express their feelings of solidarity, respect, fraternity and compassion. For this reason, in this last project, students from kindergarten to 5th grade visit community day care centres, schools or NGOs that work with children, experiencing integration with everyone. The culmination happens with a show at the end of the year where students express their understanding of relevant current issues and how to address it according to their research.

The Experiential Laboratories

We also apply the principles of the Earth Charter in the Experiential Laboratories and Artistic Creation Ateliers. In the laboratories, students have the opportunity to work on disciplines in a meaningful way, with hands-on practice, making discoveries through experiences and using and interconnecting the knowledge acquired in their school routine. For example, in the orchard, vegetable and ornamental gardens



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laboratories, students come in direct contact with Mother Earth and study the best time to plant, the scientific name of the vegetables, proper harvesting times, food preparation, nutritional values of vegetables and fruits, types and origins of ornamental plants and how to produce seedlings.

At Living Pharmacy, they research the use of medicinal plants including their active ingredients and what they are used for, prepare natural and home remedies and teas and learn about Indigenous people's traditional medicine practices.

In the Health and Food Laboratory, studies are carried out on different types of diets including natural, macrobiotic, vegetarian and vegan, the nutritional value of food, the difference between natural and industrialized food, integral health care and how to cook diverse recipes. At the House Maintenance Laboratory students learn and practice different cleaning techniques, maintenance of small electrical and hydraulic networks, carpentry and finishing stages in building. Alternative Technology is the laboratory in which students learn about techniques in agriculture, recycling, solar energy and permaculture. Finally, in the Fauna laboratory, studies are carried out on the circulatory, respiratory, reproductive and digestive systems of the animals kept at the school, in addition to learning about the proper diet for each animal.

Artistic Creation Ateliers

The Artistic Creation Workshops are spaces that allow for the recognition and development of emotions, feelings, creativity, morals and ethics necessary for



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individuals to find their place in society. In music classes, kindergarten students discover musicality through the choir and the discovery, observation and experimentation of rhythms. Elementary school students learn to play musical instruments. In craft classes, manual and creative skills are developed using different materials and techniques. Students learn the visual arts through drawing, painting, woodcuts and sculpture which allow students to express ideas and feelings and to explore creativity. Drama classes teach dramatization, in its various genres, and foster development of verbal and non-verbal communication and body language, as well as individual and collective responsibility and the concept of belonging to a group. In body related classes, students learn alternative techniques including biodance, yoga and shiatsu, to explore psychomotricity for physical and mental well-being.

Group Work

Living in diversity is an important challenge and brings great learning in building a new society. The group work developed at Escola Vila favours the development of coexistence skills and enables constant contact with different ways of thinking. Knowing how to communicate with the community and respect others' worldviews is fundamental for meaningful learning, so teachers always use group activities rather than individual projects. In this way, students are encouraged to interact, talk, discuss, exchange ideas, argue, understand and accept the other's point of view, even if it is different from their own. These groups are established by the teachers or by the school to guarantee their diversity. In addition, each group assumes different responsibilities on a weekly basis, such as cleaning the room, organizing lockers, distributing snacks and carrying out projects. In this way, students' autonomy and roles are expanded, and all students experience and share in the democratization and self-management of the classroom. This also nurtures the spirit of service and cooperation.

Commitment and Social Inclusion

Escola Vila, since its foundation, has always invested in the community, facilitating training for teachers in the community and public schools, donating school supplies, carrying out the integration and coexistence of the students of Escola Vila with the community or inviting students from the community to the school.

Ecosystem Pedagogy proposes practicing citizenship activities that extend beyond the school walls. Therefore, Escola Vila represents and feels represented by the Earth Charter's 16 principles and believes that this document should be made available, consulted and adopted as a theoretical and practical reference in other schools, universities, companies and branches of government. It is increasingly essential that we commit to action and the training and transformation necessary for the continuity of life on Earth.



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[1] *Quilombolas* are the descendants and remnants of communities formed by fugitive enslaved people (*quilombos*), between the 16th century and 1888 (when slavery was abolished), in Brazil. They continue to live in their traditional communities.

[2] Cordel literature is a traditional regional literary genre with the main characteristic being colloquial language, humor, irony and sarcasm and a strong presence of meters and rhymes. They are popular poems, which seek to communicate orally (as opposed to traditional literature printed in books), and also through small and simple leaflets. It has the social function of informing situations and elements of Brazilian culture while entertaining the public.

[3] *Parlendas* are children's verses, offering combinations of simple, brief and repetitive words that are easy-to-memorize. They are part of Brazilian folklore and pass from generation to generation, transmitting popular oral culture.

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