Environmental Education: Environmental Responsibility and Positive Evolutionary Parametrization

Lazaro Pereira Dourado¹, Lourivaldo Silva Santos², Eneida Regina das Neves Nascimento³, Elba Vieira Mustafa⁴, Manoel Henrique Reis Nascimento⁵, Evanira Maria Ribeiro dos Santos⁶

¹,³ Galileo Institute of Technology and Education of the Amazon, MANAUS/AM, BRAZIL.
² Federal University of Pará, BELEM/PR, BRAZIL.
⁴,⁵,⁶ Galileo Institute of Technology and Education of the Amazon, MANAUS/AM, BRAZIL.

Abstract— In the last years the divulgence of the theme environmental preservation, care with the environment and responsibility are increasingly in evidence. To support the research in evidence was used the methodological procedure permeated by conducts of bibliographical research. So to understand this duality, environmental issue and responsibility with the environment, is to penetrate divisive strands of paradigms and concepts that are very strong and difficult to cohabit in fullness and that can walk together, since on the one hand, leadership is occupied by the economic system environmental protection issue. This time we have the capitalist economic system that was planned to acquire raw material to explore the nature, to manufacture and to profit and that sustains the artificial standard of the current modern life and on the other hand the nature that has its finite resources with its own cycle and species which do not reproduce with the same speed and proportion as their opponent aims, so it is exhausted, extinguished and subjected to major changes. The first quoted is a human creation to keep itself through the lucrative business that gained its stability in the Industrial Revolution and which currently strengthens and gains more importance without glimpsing competitors. The second has as its main object nature and its normal course of natural transformation, however, it is under the human domain that through its conduct in the exploratory economic model does not care about the consequences that its actions have been causing, since it acts with disregard, explores to supply the infamous ambition of immediate financial power, which in turn is unconcerned with the resources that end up culminating in an outcome not encouraging for the future of life on the planet. Drawing on the history of human habitation on the planet, one can deduce that the most intelligent being of all living species was able to bring extermination and destruction very quickly. The human species is endowed with better conditions than other living beings. By understanding these possibilities, it has used its abilities, it has mastered great inventions, perfected them for generations, and in the present situation it was able to create mechanisms, sophisticated technologies that nowadays have also become meters sufficient to account for the advances and the great losses of its history. These instruments were capable of evaluating their current economic management model and its destructive exploratory way of the environment. Faced with such a result and its lack of responsibility, various sectors with countries, scientists, groups of environmentalists, citizens, have collected data through deep studies and scientific to demonstrate what the human being is doing to his planet and if it continues thus, what it intends to leave to future generations. The analysis relies on scientific statistics to say that the current profitable paradigm implanted in the world with its exploratory project has simply over-extracted, contaminated resources and brought to the heights of extinction various species and natural resources. As a way to counteract these attitudes and mitigate such destruction, it is necessary to use the parameterization, which is a standardized evolutionary species of studies, possible, applicable and necessary factors of a one-dimensional evolutionary uniformity that can be applied in the educational field and gradually advancing to achieve effective goals each time for the protection of nature and the defense of the future of life on the planet.

Keywords— Environmental education; Responsibility; Educational parameterization.
I. INTRODUCTION

The objective of this work is to analyze how organized environmental education and evolutionary applied in school and human responsibility would be essential in the project of preservation of the planet, for this to occur it is necessary to use a grid of parameters parameterized evolutionary each period with goals achieved accompanied by positive analyzes or deductions or self-criticisms to be able to have gains and advances propositive benefits of nature since the history of human existence and its action of degradation of the environment are real, leave no doubt, are patent and can bring a reading of what nature has undergone and what may occur in the future if this is not avoided.

It is known that the natural march inherent to the planet includes changes and changes in its cycle as shown by some traces left by nature itself and verified by human technology or the advanced studies of the modern sciences of the field. Many species have mutated and evolved and others have been decimated in a slow, natural process. On the other hand, there are other changes that have occurred due to human artificial interference through their actions in the environment due to their trajectory on the planet. It can be said that this action imposed by the most intelligent inhabitant of the earth, has caused great changes in the air, in the earth, in the water and in its natural cycle.

II. THE SENSE OF EVOLUTIONARY PARAMETRISATION IN THE ENVIRONMENTAL ISSUE

The environmental issue has attracted a great deal of attention and has become more pronounced in recent decades, especially in educational environments, especially in academic education among higher education students associating nature with ecological processes (Santos et al., 2009).

Analyzing history, one can see that the desire to unveil nature is very old and over the years, this relationship between man and nature has become so close that it enabled him to understand and dominate it. Researching some literature on the subject reveals the various ways in which nature is defined. For the Greeks, for example, there was already a great deal of concern in understanding the physis (Gonçalves 2006), so conceptualized by the pre-Socratics, and that Aristotle later defined it as something that merely happens if it makes present, whose beings are placed as that which involves and is close at hand (Foltz et al., 2005). The unveiling of reality was part of that era in order to be able to grasp and understand it by reason.

Already in the Middle Ages the definitions were changed to a theological conception defining nature as a divine work and man being the most perfect creature of creation with powers to dominate it. This definition was reinterpretated at the time of the modern sciences, which demonstrated its disagreement with the theological definition, affirming that nature has its own composition in physical causes (Braga and Reis 2004).

This new mechanistic interpretive posture of the time contributed to move the belonging of the human being to the nature, that of possession of this happened to treat it as something outside its reality, including considering it inferior to its superiority and showing with clear evidence its condition denatured; this new concept served as support and support for a paradigm shift that brought sensible consequences to the way of interpreting reality, which now as a higher being could condition nature as being a mechanical only gear and that could be dominated by it, taking into account his new way of understanding considered superior, rational, denatured and alienated from belonging to this environment, so that he can use it, subjugate it, free to seek support in the use of his own creations and technologies.

In this direction we have the theory of Nicolaus Copernicus who rejected the position of the earth as the center of the universe giving instead the heliocentric theory, according to Porto and Porto (2008). Another essential support was the Renaissance movement that provided a view of deacralized reality with purely physical causes (Braga and Reis 2004). This mechanistic perspective of nature allowed Descartes to base his theory by indicating that nature is the object of human reason and therefore inferior and can be dominated and interpreted in a way disconnected from it, is a reality that holds the human position as denatured.

To complete its position of being superior, the capitalist system was created and structured in the Industrial Revolution, mainly with the invention and with the technique that produced to produce in large scale supported by the modern domain of the sciences. It was possible to perceive that the new interpretive paradigm created by the human being as well as its imposition to transform the environment from its exclusive point of view was settled, facts that opportunized to extend the human idea to the practice with its inventions. This new behavior has led to an increase in large-scale production over the years. This has led to significant changes in the natural environment, such as the desire of modern science (Capra, 1986).

It is worth remembering that this paradigm, this new interpretative model of reality, is only a one-way analysis.
conditioned by the dictates of a system known as capitalist, since there are so many other human forms of reading reality that are unrelated and that carry different analyzes.

However, throughout human history there has never been an economic structure so well elaborated and diffused for a long time and that it extended its dominion in almost all the places of the planet. The analysis in this direction brings with it the certainty that there is much scope still to be unveiled by this economic system which has an enormous potential for innovation and apparently infinity in its domain.

The theory and practice recognized the human being as the top of all living beings, the main thinking and domineering being; with the power to exchange information and create new technologies, has given them the seal of being able to innovate and further their achievements.

Because of this, it created its denaturalized and “independent” condition, since it is the most intelligent being on earth, and has as great differentiator the ability to know, dominate, design and freedom of choice, understanding its environment as a project of its domain.

With this also enabled technological mechanisms that are able to safely form analyzes and this enabled reflections on this behavior that in a rapid survey allows to have data of its conduct and trajectory that in general lines deduces as positive and negative balances, but when compared to which faced other living beings, it has received the label of being more destructive of the environment among the others.

With the introduction of its technology in the natural world has had to pollute the environment and in the current scenario indicates that nature has been despised, exploited and decimated by its capitalist economic project.

As a result of this greedy project facts and evidence have been listed by current scientific studies and show the marked pollution of air, water, land and their chemical interference in modified and industrialized foods bringing about a difficult regeneration of nature.

It must be taken into account that this economic hegemony controlled, directed, reduced science and technology simply to this system, with this there was clear control of the role of science in a single direction, mutilating the knowledge and the amplitude of the research for providing understanding exclusive to this economic objective, leaving aside what could be included as social values, respect for life and little harm to nature.

When the social values are evidenced, we have to present the knowledge of several sectors that are indigenous sources of knowledge of many cultures in different places of the planet that could bring to the intellectual field several different dimensions of what cultural and economic hegemony did with knowledge and research, but by doing so imposed a controlling reductionist view exercised by the current system, since it turned money into arbiter of everything, including the fruit of the ardent and loving work of someone in a mere commodity or when a certain foreign culture to bring a solution, the result of its particular knowledge achieved by its other scientific development, will find the doors closed on account of a patent or a rule or law that protects certain controlling and financial group enabled to repress the open exchange between scientists determining to close their communication and their knowledge.

This reductionist science could also be able to be violent against the knowledge due to its exclusivity and pretension, in addition it was able to destroy the integrity of the nature weakening its natural capacity of regeneration introducing artificially chemical products and oblivious to its own regenerative matter, because its intention is to demean the nature and to transform it to supply immediate needs without caring for its consequences.

Possessing this information about the controlled knowledge, pollution and destruction that has been occurring in the environment due to the hegemonic ambition of capitalism is that initial reactions have been present in the past and more pronounced in the present to save the planet and the species, besides the more information, disclosures and attitudes of concern for the preservation of nature are being made available in the digital media that defend this cause.

In the same conduct are the manifestations of studies and various sectors of awareness that little by little has denounced the little dissemination of the knowledge of the patrimony of all and the reduction of scientific knowledge manipulated exclusively to the economic factor. Because of this, human vision and technique have been subjected only to financial gain, all of which are indifferent to environmental preservation because they treat nature with contempt and pollution.

On the other hand, the forms of awareness to preserve nature will have to use the same methodologies and techniques that were used by this power. Here it is necessary to observe, it is not enough goodwill and disclosure against all that has made this accused systematic, but to use the evolutionary logic that gave so much power and structure to the financial system in focus.
Then the process of opening and exchanging knowledge aimed at this new order of value and environmental consideration can be initiated by the basis of the formation of the people that is easily deduced to be the school and it is in this formative field, object of discussion of the present theme, that is it is necessary to reinforce the education of the environmental conscience, since it is not enough to only show or mark dates in defense of the environment, but to adopt an evolutionary programming of subjects and actions subject to critical analysis open to innovation to progress in a standardized way, can be classified by parameterization applied in a school system that can have a sequence and improve its evolution in each series or at each stage.

This would also imply supporting periodic revaluations by reviewing what has already been achieved and of what can be improved by using new techniques unrelated to the exclusive and reductionist view of the current economic scientific stance. The evolutionary parameterization would be a kind of uniformization of techniques that achieve goals at each stage achieved and implanted to future learners proactive environmental social agents.

The capitalist industrial system has made great advances with its inventions of its techniques and in using the same instruments one has the ability to measure and know the damages and pollution to the natural environment, but in order to reach this conclusion it is necessary to research, to deepen the cognitive knowledge, to clarify and propose solutions with little environmental impact to the current technological world, opening doors to the dialogue between the reductionist science of economics and the other techniques with less destructive potential.

The current media also made it possible to disseminate information on the subject, especially with regard to concern for nature, and this has captured many supporters and followers of the idea, so much so that a destructive event of nature can be released in a few seconds favoring many views and its power of manifestation repudiating this fact.

However, school education and environmental perception should be elected and given special attention, since teacher and student education could have a much more recognized scope in the aspect of conscious protection training and organized behaviors based on in-depth studies with their safe data that knowledge can favor and be used in this sense of environmental preservation.

For this, the implementation of a modular architecture with the application of evolutionary parameterization in the school grid and the preparation of the teacher's perception in the first place that is the educator and then have its extension and inclusion of the student that will be prepared to each module that will leave more enabled to compare his reality with those that are being brought to his percept, which will consciously understand, aided by the connected imagination, the various internal images of himself, of evolutionary educational instruction and of reality to transform them into propositional knowledge.

The adult life of an apprentice can be the fruit of many choices presented in his basic education. Hence the great importance of electing environmental education within the aspect of preservation as one of the directives of the educational reality of their preferences and these choices actualize an aspect of their formative being in favor of conscious knowledge and certainly before the social gear will have a choice based on training base with less destructive power.

Training is an aspect of constant modulation, so living is to make choices and these choices having as bias the capacity to transform, but without destroying always becomes a value, since the environmental training was able to raise value of preservation with consciousness.

The anticipation of values for environmental preservation becomes an elective value with conscience and free will for those who will work with education and the next social agents and members of the tree of human knowledge.

Thus, faced with a culture accustomed to a denaturalized vision that imposes its knowledge and techniques first with fully profitable economic support, understanding that nature is only its source of supply of raw material and nothing more, it is possible with the same inventions to measure how much this has brought contempt, pollution and extermination to various species. It is time to say that human knowledge is not only a master's slave, but is at the service of all and for the good of all inclusive open to exchanges of experiences with other indigenous knowledge in the scientific world and in the name of knowledge patrimony of all thereby opening the fraternity distinct from the hegemony of financial empires. The training centers, which are the school environments, including higher education, have already demonstrated by their stories that they are the educational and training sites par excellence, indisputably seeders of formative culture for future generations, so they are also able to a theme so relevant to the maintenance of life on the planet, concern for nature, the environment, preservation, conservation and foster great research on the subject. The key to the opening of this secret will always be the sequenced education with the characteristics of an
evolutionary parameterization that evaluates and proposes changes and visions of a profitable science and technique that does not come to envisage a collapse of life on the planet. For this to happen, it is necessary to recognize that the school is an integrated training environment with society and a partner in the formation of social agents concerned with environmental preservation. Finally, environmental education is generating a preventive awareness that gives people a contact with their outer world and the environment. But this concern has to be constant so that the human being can strengthen his conscience, his values, abilities, indispensable attitudes to judge and understand the environmental problems around him.

ACKNOWLEDGEMENTS

Special thanks to Galileo Institute of Technology and Education of the Amazon and the Federal University of Pará.

REFERENCES


