INTERDISCIPLINARITY AND EDUCATIONAL PRACTICES IN ECO-DEVELOPMENT: ANALYSIS OF THE EXPERIENCE OF THE RIO SAGRADO MICRO-WATERSHED - MORRETES/PR[1]

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Introduction

The appropriation of nature and the transformation of space became the agenda of numerous discussions in recent times. Inseparable realities, nature and market are becoming interdisciplinary area of interest, with studies on sustainable development, which in its concept consensus does not yet exist.

In turn, the development has been historically treated under the reductionist and economicist perspective, favoring accumulation and short-term gains at the expense of careful analysis about the socioenvironmental problems. This development pattern has led to a "civilizing crisis" (LEFF, 2006), unprecedented that rested their bases of orientation in modern science, from ultra specialized nature incapable of supporting solutions to the crisis created by its own dynamics. While the economic aspects continue to be synonymous with established paradigm of prosperity and progress, as there was no alternative, the man will have to coexist with the increasingly degraded environment.

The development capable of supporting dialogue and meaningful actions is a decisive step towards alternative development models to the hegemonic model. In this

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process, knowledge and autonomy are aspects that can establish a new rationality, able to recognize that it is not possible to mitigate social exclusion arising from asymmetric development, or even resort to the application of models without signification and contextualization with society, which is intended.

In this context, the article aims to evaluate the contributions of a pedagogical education experience for eco-development as an alternative to the hegemonic development model. The experience in question has assumed the form of an Honors Program, - which definition is treated in this work - that has been held at the Education Zone for Eco-development in the Rio Sagrado Micro-watershed in Morretes (PR). It is the evaluation of an action-research.

This methodology is particularly suitable for studies with an interdisciplinary focus, aimed at creating alternatives socioenvironmental problems that arise in underprivileged communities by public policies. Its concept houses the question of interdisciplinarity, which is useful in the construction of collective action mechanisms, capable of generating a continuous process of innovation (COUDEL and TONNEAU, 2010). It is also a systemic process of questionings, with the participation of community in collaboration with researchers at all stages of research, especially in the decision about using the knowledge generated that should be reversed in territorial transformations (SEIXAS, 2005; VIEIRA, 2009).

Finally, as a method of data collection was used bibliographic research, participant observation, and documental analysis. The analysis was conducted from the description of events that occurred during the construction and implementation of the pedagogical process of the experience that signaled impacts and developments capable of causing territorial transformations in the study area in question.

Development and socioenvironmental crisis

Discussions about the development, as it is known today, began in the years 1940/1960 linked to reconstruction projects on the periphery of Europe in the postwar period. Arisen from the need for a developmentalist state capable of establishing a democratic regime able to conduct reconstruction and overcoming social and economic backwardness of the postwar (SACHS, 2008), the great challenge of the economists of the period was to guide policies that would exceed the shortcomings in these countries - rudimentary industrialization, unemployment, land tenure considered antiquated - contributing to the material growth of these economies (SACHS, 2004).

The dominant economic model of the time advocated full employment, the welfare state, and the need for planning and state intervention in economic issues, in the context of rearrangement in the world system of the postwar period. Nevertheless, the configuration of growth adopted demonstrated disregard to the ecological balance, which resulted, in economic terms, an imbalance of resource allocation and, in social terms, an imbalance in the distribution of welfare.

In the period 1945 - 1975 Western countries have experienced significant economic growth of part time jobs, but with environmental impacts. Until the mid 1970s the

economic development literature was directly linked with material progress, where the expansion of the wealth of a nation would lead to an improvement in social patterns of its population (SACHS, 2004; VEIGA, 2005). The environmental problematic emerges from the cross discussion between resources, population and environment, warning of the risk posed by the dynamics of economic growth that does not take into account the support capacity of ecosystems.

It is opportune to observe that by the end of the twentieth century economics textbooks treated the concepts of development and growth as synonyms. In the 1990s, with the policy of the United Nations Program for Development (UNPD), arise the Human Development Index (HDI) as an indicator of developmental assessment (GRIMM, 2010).

Amartya Sem (1990) joined the group of UNPD consultants who created the HDI. Was one of the main authors to contribute to the definition of development approaching it to the idea of quality of life. From this, established what he called "human development," a term not incorporated by UNPD, which should have been done so that "economic growth" was no longer confused with "development".

The dominant notion of development associated with the growth, reduced the need for increased production capacity, does not meet the environmental issues that arise from the cross-discussion between resources, population and environment. Contemporary society, trapped in a technocratic and reductionist view of the environment and characterized by capitalist development has been treating natural resources as a source of raw material. Environmental harm inherent in the corporate model, constitute nowadays a civilizing crisis that endangers the sustainability of life on the planet (LEFF, 1994).

For Fernandes (2008, p. 18), this crisis originated in the conception that "modern man can not conceive the development and modernization in terms of reduction but as growth and energy consumption, and all sorts of things, associating the degree of culture to high consumption." Fernandes & Sampaio (2008, p. 88) understand that this environmental crisis is probably the greatest expression of the age that is experienced, and that in turn is based on a "crisis of values, concepts and projects" that the current paradigm does not account to resolve. For the authors, the problems caused by the current development pattern arising from the relationship between modes of life prevalent in Western societies and the way they relate to nature.

Due to the fact that the economic perspective, legacy of the teachings of classical economics, is centered on the idea of growth, encouraging superfluous consumption, one that surpasses the real human needs, the economy will continue to commit their most serious mistake to consider nature as an inexhaustible source of natural resources, ignoring the limits of the biosphere in regard to its resilience to provide resources and absorb wastes at the same time.

The eco-development as an alternative

In June 1973, Maurice Strong launches the concept of eco-development, which consisted in defining a development style adapted to rural areas of the Third World,

particularly in rural areas of Africa, Asia and Latin America, based on the judicious use of local resources without compromising the depletion of nature.

Sachs (1993, p.65) popularized the concept by defining it as an endogenous development depending on its own strengths, subjected to the logic of the needs of the whole population, this conscious of the environmental dimension of development. This concept seeks to establish a relationship of harmony between man and nature.

The concept of eco-development emerged from the effort to argue with those who sought to justify two extreme and opposing conceptions of the relationship between economic growth and environmental preservation. On one hand, the conception that the environmental problems posed no threat to the future of humanity, but it is the price to pay for development. On the other hand, the conception that environmental degradation and depletion of natural resources represented a serious threat to humanity, the search for solutions is needed to curb economic growth.

In accordance with Maimon (1993, p.88), under the strict conservationist opposition sense of environmentalism and growth at any cost, strategies for promoting ecodevelopment are based on three pillars: social justice, economic efficiency and ecological prudence.

The ecodevelopmental proposal provides criticism to the concept of growth as synonymous with development, the dominant patterns of consumption, to the system and production scale and to depredators technological styles. Favors the concept of self-determination and self-reliance, reduced production scales (small is beautiful), preference for renewable resources and clean technologies.

Proposes to reconcile economy and ecology by means of alternative development models, designed from poor countries and that meets situations of poverty, social, cultural and political exclusion. But this will only be possible through the autonomy of the central countries, education, popular participation and a balanced political equation between state, businesses and civil society.

There is an effort to include the ethical debate on socioenvironmental issues, among which dialogue on complementarity between scientific knowledge and local wisdom, emphasizing participatory diagnosis of actors subject of the development process of their territories, knowers of their real needs and potential (SCHULT et al., 2002), and interdisciplinarity should have ensured its role in this process.

In this sense, the approach of eco-development has been to offer alternative to facing socioenvironmental issues, based on a complex-systemic approach (VIEIRA, 2003), whose guiding basic principle is that "[...] all changes in one sector spreads in various ways through the set of relationships that define the structure of the system and, in critical situations [...] generates a complete reorganization" (GARCÍA, 1994, p. 86). Therefore, considering the complexity of elements involved in socioenvironmental issues, Leff (1994), García (1994) and Schultz et al., (2002) suggest interdisciplinarity as a method of study and practice for Ecodevelopment, seeking points of convergence between various areas of knowledge and practice.

Interdisciplinary practice

The fragmented delimitation of the field of knowledge caused the specializations that characterize the current science. Was with the exponential growth in the volume and complexity of knowledge and multiplication and sophistication of the technology that the division of knowledge became hyperspecialization.

In response to this phenomenon, emerging interdisciplinarity, yet as a field of knowledge under construction. To Raynaut (2000), one should not proclaim interdisciplinarity as an answer to the problems of science, is not applicable to all cases, turning it into a praxis. Rather, it is necessary to identify when interdisciplinarity can contribute to problems as an alternative, in which the isolated disciplines were not able to solve.

Research in science and technology when conducted from the disciplinary vision is at risk of being disconnected with the context in which they operate. In the words of Alvarenga et al. (2011), modern science makes use of a model of simplifying thinking, originally from a doctrine in favor of progress that brought benefits to just a few.

Born in the academic environment from the second half of the twentieth century, as a consequence of the perception that there is a need to reconnect knowledge and seek their meanings and practical applications for individuals and nature, interdisciplinarity is, according to the author, a field in construction, whose challenges are magnified to the same extent that its practical application.

For Nicolescu (1999, p. 45), Interdisciplinarity would be the "transfer of methods from one discipline to another," where its practice exceeds the discipline, but whose purpose would remain discipline. Thus, it is necessary to elucidate the phenomenon of interdisciplinarity is subsequent to disciplinary practice and, in this context it emerges as a new intellectual resource of the evolution of science, and in response to new challenges that human beings find their own survival. Therefore, interdisciplinarity should not neglect the disciplines, since it depends on them. It is rather a new approach that aims to instrument the contemporary scientist to deal with the complex nature with which he is faced, making the dichotomy man and nature being preceded by ethical questioning. This is because the coexistence between science and other forms of social representation is salutary, without the need to break down disciplinary boundaries, whereas the most important is to make the dialogue and collaboration possible between disciplines as they exist today, and between scientific knowledge and other forms of knowledge (RAYNAUT, 2011).

With no sectional, secluded or reducer thought, interdisciplinarity advocates that it is necessary to reconnect knowledge, consider the natural, social and human phenomena, allowing the interaction of several interdependent factors (disciplinary), without compromising the rigor (scientific) and consider including other knowledge (alternativity).

Souza (2011) points out that the adoption of interdisciplinarity, as a path to research, has led many researchers in attitudes of rejection and insecurity, because, besides being an innovation, interdisciplinary perspective highlights crystallized practice of disaggregation, isolation and maintenance of the status quo.

In the context of the Honors Program developed at the Rio Sagrado Micro-watershed, interdisciplinarity does not come easy routes. Were paths that required dynamic

to be created, detours to be taken and at each step a set of actions and practices to be built and rebuilt and permanently in conjunction. The path proved to be long and difficult, permeated with obstacles and resistant situations, but needed to go, so that they initiate as proposed by Japiassu (2006), a new scientific spirit that can only arise through an exercise in boldness.

Theoretical-methodological proposals of pedagogical practices that can contribute to the Ecodevelopment

To Bondia Larrosa (2002), knowledge promoted by the current formal education is essentially connected to science and technology partitioned view, as something useful in the instrumental sense, impersonal, objective, that is external to humans and may be appropriate; just like life is often reduced to the biological dimension. Under these conditions that mediation between knowledge and life is nothing but the utilitarian appropriation.

Ecopedagogy, a counterpoint to this worldview, is a term coined by Gutierrez and Prado (2002) to designate the education that promotes global citizenship, configured from the content of the Earth Charter in popular education perspective, so that the Paulo Freire Institute published their work. The assumptions designated by the authors, the question of "feel" is directly connected with the possibilities of the pedagogical process, built and rebuilt daily by their subjects who are aware of this natural relationship. The space of ecopedagogy would then be the space of everyday life of the planetary citizen, oriented to the collective. The connection between humans and the environment happen in the way people perceive what happens to them, and not from an inserter and discursive pedagogical practice, which prevents the understanding of the meaning of life and Earth. It is a term that is consistent with what Larrosa Bondia (2002) calls the "wisdom of experience"[i].

The Ecopedagogy approaches learning through education meaningful in everyday life, seeking to promote sustainable societies. To Gadotti (2000) Ecopedagogy is a theory of education that brings new forms of interpretation related to subjectivity, everyday life, lived world, and which is opposed to instrumental rationality. For the author, "Life is the meaning of pedagogy, history and daily life merge, the local and the global approach to local environmental citizenship becomes planetary citizenship" (p.85).

Avanzi (2004) discusses the concepts of education, society and nature that support the proposals of Ecopedagogy. To the author Education is understood from a "dynamic conception, creative and relational" capable of giving meaning to life "as a process of elaboration of meanings" (p. 38), with the objective of promoting sustainable societies. In this way, we need awareness about the nature and development of that consciousness depends on education.

Thus, ecopedagogy proposes the establishment of a close relationship between society and nature, seeking respect for life of all beings that inhabit the planet. Demand also methodological approach that contributes to the education of critical subjects, protagonists in the development, with ethical values, towards a sustainable society.

In this sense, to Freire (1998), the cultural environment in which groups of individuals are inserted should be background to any educational process that aims at training protagonist subjects. For the author, only a pedagogy that is born of the daily lives of learners and allows the acquisition of autonomy is able to evolve individuals in order to enable ethical choices by those from the educational process become the subjects of their own actions.

These alternative pedagogical proposals, intertwined with eco-development, can be experienced spatially in the called Zones of Education for Ecodevelopment (ZEEs). These are areas where projects emphasize the role of individuals, encouraging intergenerational reflection and the local action connected to think globally. An ZEE is, in other words, a place of study, research and practice with an interdisciplinary perspective towards transdisciplinarity, proposing philosophical foundations to rethink ethics and epistemology, involving the community in emancipatory process towards another development (Sampaio et al., 2010). As spatial area model, the ZEE corroborates the complaint of Vieira (1995), where currently "scientific research on the interrelationships in society and environment have gained strength since the models employed previously have not obtained the expected success" (p. 103).

Is this the paradigmatic changes that ecodevelopmentalist approach expands, seeking more than understand the ecological and educational issues, but make sense of teaching and learning that emerges from the local knowledge that are consistent with scientific knowledge scenario.

Honors Program in Studies and Practice in Ecosocioeconomics at Rio Sagrado ZEE

The experience of education for Ecodevelopment held in the Rio Sgrado ZEE, called "Honors Program in Studies and Practice in Ecosocioeconomics" appropriated knowledge generated by an established network in the United States, comprising about 50 institutions of higher education that practice education of honor, and the Chilean unique experience that is made from the Universidad Austral de Chile - UACh.

The term "education of honor" has its origins in the 1920s in the United States. Designates wide variety of courses, teaching methodologies and pedagogical objectives specific to academic enrichment, which are operationalized differently for each institutional or regional context, under the designation of Honor Program (NCHC, 2010).

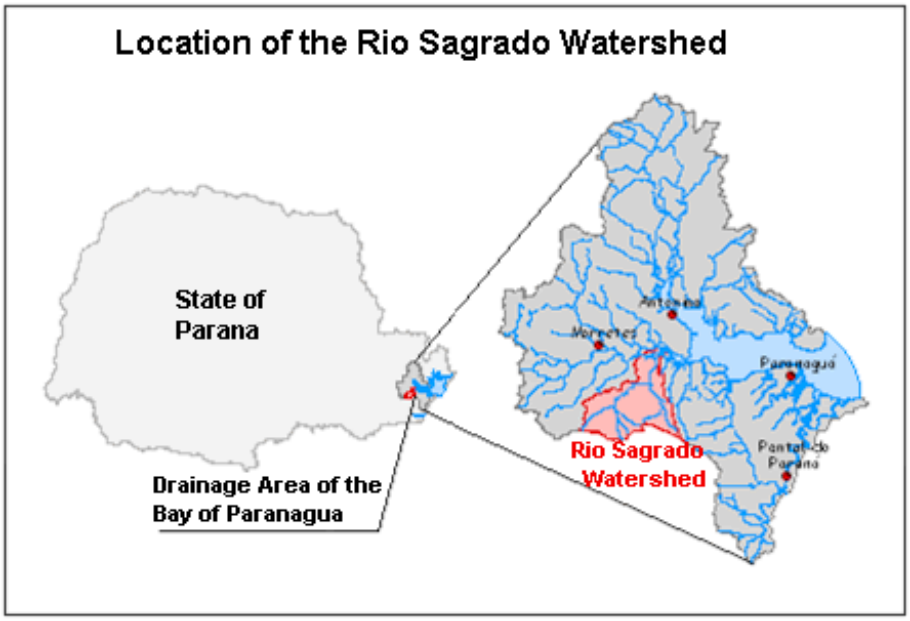
In Brazil, the funding from the Public Notice no. 23/2008, of the National Council for Scientific and Technological Development (CNPq) together with the Ministry of Science and Technology (MCT), the Agribusiness Sector Fund (CT-Agribusiness) and (FURB) and Federal University of Paraná (UFPR). The project, originally titled "Inter Experience University: providing knowledge to young people in the Rio Sagrado communities (Morretes, PR)", had the FURB and UFPA as executors and supporters interchangeably. Also, the Graduate Program in Environment and Development (MADE) provided support for researchers to implement the proposal.

The main objective of the Program was to encourage the disclosure and dissemination of knowledge for education of young people residing in the locality, aged 12 to 18, through workshops held in four school holiday periods. Providing opportunities for practical action, stimulating discovery, experimentation and debate, the methodology of workshops developing the participant's capacity of observation over its territory. Also stimulated the critical sense, awakening environmental awareness and encouraging young people to actively participate in all phases of the program in the search for alternatives to improve the quality of life for all.

The Zone of Education for Eco-Development (ZEE) in the Rio Sagrado Micro-watershed

Located in the City of Morretes, Paraná, the Southwest Micro-watershed of Rio Sagrado encompasses the communities of Rio Sagrado de Cima, Canhembora, Brejumirim and Candonga. It integrates the Environmental Preservation Area (APA) of Guaratuba and Biosphere Reserve of the Atlantic Forest (ReBio).

Figure 01 - Location of the Rio Sagrado WMicro-watershed.



Source: http://web.ademadan.org.br/projetos/programa-cad-fase-4/

In reference to the sociopolitical aspects, communities are organized in two associations. The Association of Residents of Rio Sagrado (AMORISA) with the main purpose of the management of water supply, and the Candonga Community Association with the aim of agroindustrialization of fresh products and develop actions in order to act in defense of social, cultural economic interests of the associated families. On site are 520

families, of which 270 are considered residents and 250 non-resident families, namely, have properties for leisure on weekends.

Currently the pluriactivity have space in local productive organization where the main crops grown are cassava and banana. Both are characterized as inputs of agro-industrialization and the making of crafts for sale. Much of the inhabitants divided into agricultural and livestock tasks on their properties. Local commerce is small, not very diversified and subject to the commercial center of Morretes, which is distant and difficult to access (GRIMM, 2010). Some families are engaged in community tourism.

The territory has diversity of natural resources, where sustainable development projects are underway. There is a local effort to promote the organization for a socioproductive arrangement, whose propulsion is the development of community tourism. It is a process that is being developed and which has its foundations in the organization and community solidarity. Receives the assistance of technicians and scholars from institutions of higher education. The objective is to confront the limitations caused by factors such as isolation and difficulty of access, to ensure the socio-economic survival of communities and the conservation of local biodiversity (GRIMM, 2010).

The experience of the Honors Program as a pilot project: main results

Operationally, the program was developed from a continuous flow chart and fed back to the end of each of the four stages of pedagogical activities and has involved performing diagnostic to identify topics of interest to young people living in Rio Sagrado, becoming workshops subsequently. This process was characterized as a space for discussion of socioenvironmental problems experienced in this territory, whose solutions seemed to be played possibly by these actors.

The diagnosis occurred through community meetings and informal interviews. In these contacts, the themes were suggested without the intention to limit the possibilities of approach: local cuisine; personal and collective health and education; social organization and associativism; local tour guides with an emphasis on ecology; knowledge of environmental legislation; basic knowledge of socioentrepreneurship and general management in agribusiness; computer training and communication; background in arts and crafts, aimed at the strengthening of local crafts; and training practices of agroecological production.

In order to present the project and attracting members, 69 families were contacted among the families of 90 young people aged between 12 and 18 years, living in Rio Sagrado, as shown by Table 01.

Table 01 - Adhesion to the Honors Program in Studies and Practice in Ecosocioeconomics.

Community	Number of families contacted	Number of young people who joined the program	Participation rate
Candonga	22	17	77%
Rio Sagrado de Cima	21	13	62%
Brejumirim	20	17	85%
Canhembora	5	0	0%
Without registration	1	0	0%
Total	69	47	68%

Source: DIAS, 2011.

From the records of issues of interest to youth and other community members, the project team and researchers involved - coming from various fields of knowledge - pointed thematic with whom they wished to contribute as facilitators of workshops. The next process was to assemble the grid of topics to be offered and the schedule of the workshop. Basic activities such as eating, personal hygiene, rest and recreation and fraternization, were planned.

Facilitators were joined around a specific theme that would include contributions from various disciplines, to further prepares the syllabus that had interdisciplinary orientation. The plan should also make provision for contributions of traditional knowledge to be brought to the dialogue space. Each facilitator should be aware and open to the possibility to reevaluate and readjust the planning to suit the proposal of the protagonists.

The edict that funded the program determined that the pedagogical activities should be conducted within the campuses of universities executing the project. One of the benefits of this requirement was to stimulate hybridization between traditional knowledge and scientific knowledge. This was evidenced when community members involved in the project started to notice that they were contributing with their knowledge within the "science space" that traditionally and historically excludes other knowledge. The insertion of these young people in the academic-scientific environment signaled for many of them opportunity and motivation hitherto not considered: attend a Higher Education Institution.

At the end of each stage of work, the team of researchers and community assessed the activities developed, the topics addressed and the method of teaching and learning. This evaluation retro fed the whole process that began in planning the next step.

An important aspect was the involvement of adults in some stages of the Program, which had active role in participating in the workshops, although the program was targeted to young people. Their presence was beneficial, allowing intergenerational interaction, encouraging discussion and reflection about historical facts of the local situation that were not known to many young, becoming denser the common sense of identity with the territory.

Researchers and facilitators from different areas of knowledge, linked to various institutions and connected with the interdisciplinary orientation of the Program, contributed to the organization and operation of workshops. Using dialogic pedagogical resources (construction of collective projects, debates etc.) sought to boost the creation of alternatives to socioenvironmental problems faced in Rio Sagrado.

It was found that the greater the involvement of tutors/facilitators of workshops with young people, the more they felt assiduous and encouraged. This contributed further in the implementation of actions that emerged from the discussions during the project stages.

For researchers/facilitators this was a place for them to share experiences and have access to diagnostic data for their own academic work. Just like the purpose of the program, these researchers were able to contact with complex problems of everyday life of young people from rural localities, which may contribute to the debate in search for comprehensive solutions, measuring the experience later in their academic work.

Ratings and outputs of the Honors Program in Studies and Practice in Ecosocioeconomics

Throughout the program, evaluations from two systematic were performed. The first consisted of discursive answers about content and learning of the workshops, and on individual and collective experiences and that young people were absorbing from the experience of the Honors Program knowledge. In this case, at the end of each of the four stages, they were asked to describe, in a few lines, the most important thing they had experienced in the workshops and in other periods of coexistence, such as the moments of preparation for feeding, sharing of accommodation spaces and leisure activities. In this evaluation, the youth were asked to perform a self-reflection of their effective participation.

The given answers have exposed that initially the participants did not know what to expect from the experience, although previous meetings had been held in the community setting for the Program. The fact corroborated the ecopedagogical proposal, which assumes that the pedagogical process is built according to the experience of each student and the group as they will assign meaning to what is presented to them. As for the spaces for coexistence, the question of the relationship figured as an important opportunity for participants to think the Rio Sagrado as a collective territory. The young people also reported that they understood the importance of environmental care of their territory and, the need to value and preserve ways of life that are traditional of this area (Chart 01) and want to pass on the knowledge to their families and colleagues.

The second systematic stage consisted of individual evaluation of the youth, by the guardians and companions from the program. This evaluation primarily attended the devices required by the funding body of the Program and was more focused on the absorption capacity of the contents learned during the workshops and each of its stages. This evaluation was unique and carried out at the end of the program, having been inspired by the Political Pedagogical Project of the Federal University of Paraná (UFPR), Coastal Sector. In other words, it was based on the student's progress during the process of teaching and learning.

Chart 01 - Traditional ways of life present in the Rio Sagrado communities.

Traditional ways of life	Description of activity
Flour Mill	The traditional handmade processing of cassava into flour and biju
Coffee Processing	Manufacturing process, ranging from the removal of the coffee grain until the coffee is ready to be consumed.
Community Kitchen	A space where jams and preserves of fruit typical of the place, banana candy, cassava and banana cookies and "chips" are prepared.
Medicinal Herbs	Extraction of herbs for production of handmade phytotherapic essences, preparation of creams, ointments, aromatic pillows and repellents.
Crafts With Banana Tree Fiber and Imbé Liana	Process of extraction, selection, and drying of the liana and banana tree fiber, for handmade manufacture of decorative objects.
Alembic	Agroindustrialization of sugarcane, for artisanal production of liqueurs. The process ranges from the extraction of sugarcane until the bottling product.

Source: Grimm (2010) e Dias (2011).

The possible concepts of attribution were (APL) full learning; (AS) sufficient learning; (APS) partially sufficient learning; (AI) insufficient learning. There have been cases of young people who attended the four stages, and it was possible to assess its development in the set of workshops. In cases where only attended one of the steps, the assessment was conducted between the 1st day and the last day of the stage.

From strengths that need attention for personal and collective development, besides the identification of key words, young people have been assessed and their interests qualified. All had access to the concepts and keywords assigned to them, so that they could reflect on their contribution and participation in the program.

158 people participated directly in the program, including researchers (volunteers or research scholarships), young residents of the Rio Sagrado and caregivers. Over the two years of implementation of this pilot project there was some discontinuity in participation, and many young people have taken part in just one or two stages. This factor has created obstacles to the continuity of work proposals initiated in the first stage. It was understood that as a difficulty of engagement that could be cited as a limitation on action research projects that necessarily involves lengthy processes, and that are not always aligned with the academic dynamics and research funding agencies of this nature.

The interdisciplinary approach requires cognitive effort of connection between different fields of knowledge, and might have been hampered by the little detachment of apprentices in relation to a pedagogical approach divergent of the classical school disciplinary training schemes to which they are subjected most of the time. By the researchers/facilitators involved, adequacy of time factors, collection of academic and professional results, divergence of vision and values of the same theme, were cited by researchers as complicating the interdisciplinary process, and that reflected in the pedagogical action.

The clearly defined epistemological basis, necessary for interdisciplinary practice was the preservation of traditional ways of life and preservation of biodiversity of the territories that make up the Rio Sagrado Micro-watershed. Social and environmental problems pointed out in the context of workshops and social participatory diagnosis were the subject of discussion and creation of small projects, constituting the upper hierarchy that coordinated the integrated performance of the subjects.

The Honors Program as a training project within the campuses, even to seek certain distance of the common school education, caused some previous aversion about the studies that seemed to be built in young people. For this reason, the workshops created negative expectations about vast theoretical content, and often the attention of young people dispersed as soon as they realized they were in a space with more freedom. As a counterpoint, and depending on the skill of the team of researchers/facilitators who accompanied the leisure activities or other trivial activities such as eating, hygiene, caring for the accommodation, etc., the topics covered in workshop spaces emerged less formalized and new ideas arose, which facilitated the conduction of the works in subsequent workshops.

There was effort for dialogue to occur freely between disciplines from raised demands. However, there could have been better relationship among members of the executor team of the program for the planning of the workshops was even more integrated, linking scientific knowledge and the knowledge gathered during previous steps. Similarly, it would have been appropriate a narrower link that takes into account the stronger territorial identification of researchers with the Rio Sagrado communities, like one of the central ideas of action-research.

Still, in the spaces of the workshops were created social-enterprises assays that alongside the program steps were being put into practice. These assays dealt with developments that corroborate the proposed eco-development, in which small groups (formal or informal) should exercise solutions for dealing with social, environmental and economic problems facing their communities. These networks in turn, and for the trust that connects community members, facilitated solidarity actions as to include newly created social-enterprises in the market economy. Among them are:

- Group Young Force: association of young people living in Micro-watershed of Rio Sagrado that had its actions focused on sustainable development of the locality. Aimed at the reception of community tourism visitors, aid Trade Fair organization, monitoring participatory social and environmental indicators in conjunction with project extension of the Blumenau Regional University and in the discussion of community problems and forms of social involvement of youth.
- Solidarity Trade Fairs: event characterized by direct exchanges on any given day meeting, scheduled and published by coordination. These fairs were initiated prior to the Honors Program. Yet, it was on the space of the workshops that are systematized its dynamics in the form of a social-enterprise assay, passing responsibility for the organization to Group Young Force.
- Virtual Travel Agency: social enterprise that offers the commercialization of receptive itineraries to community tourism in the localities of Rio Sagrado. The

planned services would be hosting, experiences, driving and other activities that the Group Young Force coordinates. Within the workshops of the Honors Program was built a website (https://sites.google.com/site/riosagradoparana/) for its operation. The agency would be installed on the Telecenter premises that was being planned to be built in the community, waiting for resources for its implementation.

The Honors Program was also responsible for bringing to the fore demands that have become developments with intergenerational impacts, involving activities with the initial grades and end of elementary school, high school, pre-university and the involvement of adults, who can strengthen as own projects:

- Project Environment and Development (Climate Change): aims to address the issue of the relationship between ways of life and climate change with children 6-10 years old, and from compatible pedagogical practices. Therefore, we created a meliponary (set of meliponinea hives) at parents of students' farms, which served as laboratory practices.
- Intensive Preparation for the UFPR Coastal Sector Admission Test: it is the role of volunteer teachers usually linked to research in the territory or local residents who minister preparation classes.
- Project Pre-Honors/Honors Program Studies in Environment and Development of Austral University of Chile (UACH): Brazil's Honors Program, for working with young students aged between 12 and 18 years, inspired performing namesake program in Chile, aiming to develop critical thinking, creative and entrepreneurial side of young people, to become new leaders to think Eco-development.

The impacts and developments described above demonstrate some degree of success in implementing the interdisciplinary approach, since it was possible to build common projects that have been enhanced while the Honors Program was being developed and also later.

Thus, it is understood that important steps were taken in order to announce an emancipatory educational practice and has not been proposed a specific and only methodology for education to be followed. But first, providing a space for intergenerational, meaningful, interactive and dialogical construction, which enabled changes in the territory and beyond the territory, directed to Eco-development.

Conclusions

The proposal of Eco-development presupposes an interdisciplinary practice; as it is in the nature of the concept seek cooperation between various disciplines to achieve common goals. The eco-development means contextualized development taking into account the ecological prospecting, as proposed Pierre Dansereau (1999). That is, con-

textualized because should consider territoriality and the objective conditions in the context of which the development happens.

If the context is the material basis of development, in the Eco-developmentalist perspective not least important is the notion of development as a result of culture and all the substantivity and subjectivity set that give way to development and are the very territoriality. These two dimensions, context and territoriality, which are inseparable, contain what Raynaut (2011) defines as two interdisciplinary realities that should always be taken into account in the development process: the material reality and the immaterial reality.

The interdisciplinarity in the conjunction of the Program and the Rio Sagrado territory not toured easy routes in the project. Time and relationship difficulties hindered interdisciplinary practice, especially in the dialogue between researchers. It is noteworthy that it was strategic in this mediation count on the collaboration of a community member, including being a fellow of the project for funding. The fear expressed in theoretical references regarding hierarchy issues as barriers to interdisciplinary practice, does not exist in this project.

In this case, the presence of the university in Rio Sagrado territory allowed mobilize social actors around the conservation of ways of life and local biodiversity and the Honor Program, added to other projects that have been developed concurrently in that territory, fulfilled role of promoting discussions around the ethical action and help the community to problematize their daily lives. If at this point it can not achieve broad social and territorial transformation, it is certain that the program contributed to awareness about the power of action when these happen in gathered way for community members in facing with everyday problems. In other words, the program boosted role of social actors involved.

As for the solution of socioenvironmental issues, the dialogues that showed these problems may have been the great learning experience for the supportive relationship within the Rio Sagrado community. Since it is possible to understand the problematic as a result of the relationships that social actors themselves have with other actors and with the environment they live in, the need for action of each and every one has also become more visible. Likewise, synergies were possible. Thus were generated from the program three social-enterprises and two other projects, which, however, lacked follow-up to the program. Is worth emphasizing the graduation of two students of the Honors Program in the course of superior technology in agroecology at the Federal University of Paraná, Coastal Sector in 2013, in addition to other students who are enrolled in other university careers.

Note

i Wisdom of experience refers to the way individuals establish interaction with reality and from it transform themselves (Larrosa Bondia, 2002, p. 27).

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INTERDISCIPLINARITY AND EDUCATIONAL PRACTICES IN ECO-DEVELOPMENT: ANALYSIS OF THE EXPERIENCE OF THE RIO SAGRADO MICRO-WATERSHED - MORRETES/PR

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***Abstract*:** Considering the relationship nature-society, that leads us to the knowledge production process, in which pedagogical practice should be based. The interdisciplinary to respond socio-environmental questions in opposition to the developmental model, should focus in alternatives, reviewing traditional ways of life, capable to induce ecologically based practices, concerned with the sustainability. Thus, there is the perspective of eco-development, aimed at more equitable balance between economic, social and environmental issues. At "Rio Sagrado" watershed, Education's Zone for Eco-Development, in Morretes (PR) where projects are developed in order to promote the knowledge's hybridization which should interacting between folk wisdom and scientific knowledge, looking toward to solve social and environmental problems, faced by the local community. Methodologically is an action-research, which had as its main result the environmental changes' observation, which happened in that territory, where knowledge emerged from the experience and knowhow which could achieve the scientific knowledge.

***Key words*:** Interdisciplinary; Eco-development; Pedagogical Practices**.**

***Resumo*:** A relação sociedade natureza remete ao processo de produção do conhecimento no qual a práxis deve fundamentar ações pedagógicas. A interdisciplinaridade para responder questões socioambientais, contrapondo-se ao modelo desenvolvimentista, deve privilegiar alternatividades, como são os modos de vida tradicionais, capazes de induzir práticas de base ecológica. Assim, destaca-se a perspectiva do ecodesenvolvimento, que sugere o equilíbrio entre as dimensões econômicas, sociais e ambientais do processo de desenvolvimento, e aponta a insustentabilidade dos estilos de vida em torno da sociedade de consumo. Na Zona de Educação para o Ecodesenvolvimento da Microbacia do Rio Sagrado, em Morretes (PR),

são desenvolvidos projetos que facilitam o processo de hibridização de conhecimentos, promovendo uma interação entre sabedoria popular e conhecimento científico, com vistas a solucionar problemas socioambientais enfrentados pelas comunidades locais, como o caso do Programa de Honra em Ecossocioeconomia. O artigo objetiva avaliar as contribuições desta experiência. Metodologicamente, trata-se de uma pesquisa-ação, que resultou em transformações socioambientais ocorridas no território em questão, onde o conhecimento emergiu da experiência e do saber-fazer, coadunando com o saber científico.

***Palavras-chave*:** Interdisciplinaridade; Ecodesenvolvimento; Práticas pedagógicas.

***Resumen*:** La relación sociedad/naturaleza nos remite al proceso de producción del conocimiento donde la práctica debe apoyar acciones educativas. La interdisciplinariedad para responder a cuestiones ambientales opuestas al modelo "desarrollista", debe privilegiar alternativas, capaces de inducir a prácticas ecológicas preocupadas con la sustentabilidad. Por lo tanto, se destaca la perspectiva del eco-desarrollo, con el objetivo de alcanzar el equilibrio más equitativo entre las cuestiones económicas, sociales y ambientales. En la Zona educacional de Eco-Desarrollo de la Cuenca del Río Sagrado en Morretes, surgen proyectos que faciliten el proceso de hibridación de conocimientos, la promoción de la interacción entre la sabiduría tradicional y el conocimiento científico, con el fin de resolver problemas sociales y ambientales que enfrentan los comunes. Metodológicamente esta investigación-acción, tuvo como principal resultado la observación de los cambios ambientales de aquel territorio, donde el conocimiento surge de la experiencia, del saber hacer que va de encuentro al conocimiento científico.

***Palabras clave*:** Interdisciplinariedad; Ecodesarrollo; Prácticas Pedagógicas.