PROCEEDINGS
6th International Conference on Environmental Education and Sustainability
“Best of Both Worlds”
UNIVERSITY OF SÃO PAULO
SOCIAL SERVICE OF THE COMMERCE

PROCEEDINGS
OF THE 6TH INTERNATIONAL CONFERENCE ON
ENVIRONMENTAL EDUCATION AND SUSTAINABILITY
“THE BEST OF BOTH WORLDS”
Sesc Bertioga, São Paulo, Brazil, May 12 to 16, 2014
1st edition (Extended version)

São Paulo, october 2014
International Conference on Environmental Education and Sustainability (6. : 2014 : Bertioga, SP, Brazil)

1 e-book (678 p.) il.
Extended version.
Disponível www.sescsp.org.br/conferenciabertioga

CDD 301.3


---

The environmentalization of physical education in higher education settings: environmental dimensions of academic units in federal universities of Brazil

CaeRodrigues

FEDERAL UNIVERSITY OF SERGIPE, BRAZIL

Contact: cae_iah@hotmail.com

Abstract

The presented research was oriented by the following question: considering the global movement of sustainability in education as an ‘environmental happening’ and the tendency towards the environmentalization of different areas of knowledge, what developments stand out in the field of physical education in the context of higher education reform (possibilities and critique)? The corpus embraced ‘Unit Guides’ of academic units in physical education programs of Federal Universities of Brazil that, in some way, involve environmental issues. The textual discursive analysis of the corpus highlight, above all, a great diversity of objectives, contents and methodologies, justified, especially, by the apparent lack of epistemological identity of the environmental field and differences between schools and institutes where physical education programs are located. More broadly, the results highlighted different dimensions of environmental discourses being incor-
porated by the physical education field in (higher) education settings, as well as other significant data for understanding the trends/issues surrounding the environmentalization processes of physical education in Brazil today.

Keywords: Environment, Curriculum, Higher Education.

Introduction

The production of curricular policies in higher education settings has been subject to increasing debate at the light of the 'environmental happening'. Understanding that the emergence and legitimation of different discourses depend (basically) on relations of power (FOUCAULT, 2006) or disputes of capital (BOURDIEU, 2004) that are established within a given field of cultural production, the idea of a 'happening' rests on the emergence of 'new' lines of thought resulting in a series of related events linked to a distinctive phenomenon. Consequently, dispute, questioning and instability surfaces in previously legitimized concepts and social realities and new/transformed discourses, practices and objects of knowledge emerge.

Foucault’s description of the 'discourse' dilemma shines a brighter light on the concept of 'happening'. According to the author (2006), when analyzing discourse we must not concentrate on the meaning of what is said, but rather on the function assigned to what was said at that given moment. Thus, discourse can be understood as a series of 'discursive happenings' that establish direct association with other 'happenings' linked to various fields (e.g. economic, political, educational) or institutions; from system to system (acknowledged individually) and by the (ignored) imposition of internal rating systems and mental structures adjusted to social structures, dominant discourses tend to seize the established order as a 'natural' condition (BOURDIEU, 2004). In this context, the environmental issue is acknowledged as a 'happening' when it questions legitimated discourses, games of power26 and strategies of dominance that are (re)produced in social relations, consequently triggering potential points of rupture in what, at first, would be presented as a 'natural' condition (FARIAS, 2008).

This means questions raised by the environmental happening engage modern postulates, such as the production and dissemination of knowledge, putting into evidence epistemological, methodological, ethical and political issues surrounding educational policy as a whole. However, if on the one hand the need to generate interdisciplinary knowledge and to train professionals that recognize and develop elements of socioenvironmental sustainability is formally recognized, on the other hand the insertion of environmental issues in academic contexts has come across numerous obstacles, revealing the great resistance of the educational field towards change (CARVALHO, 2001; RUPEA, 2007). As a complex institution that gathers intelligence and rewards it according to structured rules, the University shows a greater tendency for the development of

---

26. As in every game the dispute here is conducted by a series of 'rules' that are accepted (recognized by all 'players') as a regulating code for 'ways of doing'; this code establishes the basis of the 'game', conditioning everything from the selection of 'players' (actors) to the way they must be instructed (educated) to play the game (act). These rules are unquestionable and act as 'real' discourses that underlie, justify and establish the principles for the established 'ways of doing' (Foucault, 2006).
knowledge within established paradigms than for the development of knowledge that can break away from (and eventually even transform) such paradigms. This explains, at least in part, the common gap between the University’s need to produce innovations and its ability to innovate and renew itself, a contradiction which can be summed up as a clash between scientific imagination and institutional conservatism (BIRD, 2001).

This controversial stress between the questions raised by the environmental happening and the conservatism of the educational field reflects the disparities between standpoints based on the continuity of a socio-cultural project based on values established/legitimized in an earlier period of time (currently characterized, especially, by ‘modernity’) and standpoints based on forms of knowledge that are rooted in emerging demands and values (currently characterized, especially, by ‘post-modernity’) (LEFF, 1997; PAYNE; RODRIGUES, 2012). In higher education settings this surfaces, overall, as disputes between potential transformations in educational practices and policies oriented towards an 'environmental rationality' (LEFF, 2006) and the difficulties in establishing radical revisions on formal (educational) structures, on the outlines of knowledge production and on (historically constructed) curriculum (FARIAS, 2008). In this context, research on curricular policy production for higher education should reveal practices that may be linked (in greater or lesser degree) to issues and challenges that arise as a consequence of the environmental happening. Thus, an analysis of national curriculum policies in higher education settings focusing on curricular environmentalizationc should have as starting point a panoramic view of the changes produced in the context of higher education reforms and its relations to environmental discourses.

The concept of environmentalization emerges as a reaction to a previous process of 'devastation' that is intensified after the industrial revolution to become a matter of public importance, especially after the 1960s and 1970s. The reaction to this process of devastation and to the newly created idea of 'environmental risks' (DOUGLAS; WILDAWSKY, 1982; BECK, 1992) is mainly credited to the mobilization of social groups at local, regional, national and international levels, resulting in the creation of State defenses (environmental agencies, laws and regulations), the (re)training of professionals to act in new environmental scenarios and even the construction of a commercial/entrepreneurial logic that relies on criticism of the devastating aspects of capitalism to justify new corporate environmental responsibilities seeking profitability through anti-pollution and environmentally sustainable investments (LOPES, 2006). Following this logic, curricular environmentalization embraces present discussions surrounding the meanings of 'environment' (crosscutting social, scientific, political, ideological, and cognitive fields) and the organization of curricular practices.

27. According to Carvalho (2010) ‘environmentalization’ is the process of internalization of environmental issues in social spheres and in the moral formation of individuals, a process that can be identified either in the emergence of environmental issues and practices or as a new phenomenon characterized by reconfigurations of traditional issues and practices that incorporate environmental aspects.

28. The concept of environmentalization is allegedly related to a move forward regarding environmental claims, achievements and institutionalizations; in opposition, the concept of devastation is allegedly related to the progressive destruction of environmental resources and the expropriation of traditional social groups (LOPES, 2006).
Curricular environmentalization is an important piece of the environmental happening ‘puzzle’. This statement serves as basis for studies that analyze current curricular practices with a focus on environmental issues. Considering the range of activities that constitute the broad concept of ‘curricular practices’ (e.g. research/extension projects and innovations/renovations in physical spaces/equipments of educational institutions), the research presented in this paper focused on academic units within institutionalized curricula. This is justified by the belief that these have particular relevance as representation of geo-cultural/historical/political processes that result from disputes of power that orchestrate the constitution/legitimation of social structures. This is a two-way process: at the one hand, academic units represent/reproduce historical results from struggles of power that occur in different spaces of dispute; at the other hand, they also contribute to the evolution of social disputes creating/legitimating (as formalized/institutionalized symbolic capital) new/different symbols that carry the particular force of the scientific/academic field.

In these continuous and constant structuring processes amongst sociocultural phenomena different areas of knowledge dispute ownership over ‘reason’ and dominance, an unremitting struggle for ‘recognition of authorship’ of symbols in dispute (BOURDIEU, 2004). Hence, the symbols and structures that constitute knowledge/expertise differ insofar as they relate to the object and themed field of each scientific discipline. This does not mean new fields of knowledge or new disciplines are constituted, but a particular knowledge that apprehends epistemological and methodological approaches for addressing its unique issues – an ‘environmental knowledge’ (LEFF, 1997) that presents challenges to interdisciplinary research and to its insertion in different programs. The institutionalization of environmental issues in higher education is a very recent process and develops quite differently in the various disciplinary fields as environmental knowledge, values and sensitivities are produced and shaped by the different stories, concepts, methods and forms of organization of each specific area (BURSZTYN, 2004). Creating issues for (innovating) research, environmental discourses are integrated/ incorporated by the discursive mechanisms of different disciplines. This reasoning justifies the central question of the research presented in this paper: considering the global movement of sustainability in education as an ‘environmental happening’ and the consequential tendency towards the environmentalization of different areas of knowledge, what developments stand out in the field of physical education in the context of higher education reform (possibilities and critique)?

‘Environment’ is one of the transversal themes proposed by the Brazilian National Curricular Parameter (BRASIL, 1998), idea that is reinforced by the National Curriculum Guidelines for Secondary Education (Brazil, 2012) by stating in its fifth article that environmental sustainability is a universal goal. But, according to Sampaio (2006), this is not the only justification for the insertion of environmental issues in theoretical and practical (praxical) spaces of physical

---

29. Institutionalization is here understood as the process by which a society develops its own operating structures.

30. Transversal themes are those considered too complex to be addressed by a single discipline. The contents for the development of the transversal theme ‘environment’ in Brazilian educational institutions are divided into three general blocks: ‘cycles of nature’, ‘society and environment’ and ‘environmental management and conservation’. 
education: these issues are related to the fundamental core of this discipline, seeing it deals with corporality in dynamic movement and, therefore, cannot be dissociated from the whole ecosystem which it constitutes and by which it is constituted.

Considering, therefore, the relevance of different manifestations of the environmental phenomenon in varied fields of knowledge construction and dissemination and the previously highlighted relevance of curriculum practices (especially academic units) in the broader perspective of the environmental happening, the research presented in this paper focused on the curricular environmentalization of physical education in higher education settings. Aiming a sample of national representation in Brazil the empirical corpus of the research embraced ‘unit guides’ of academic units found in curricular structures of physical education programs in the country’s Federal Universities. The corpus was analyzed using Textual Discursive Analysis (MORAES, 2003), methodology that comprises the following steps: a) disassembly of the texts (emergence of units); b) establishing relations (categorization of units); c) capturing the new (hypertext showing the emergence of a renewed understanding of the whole). The data was analyzed in dialogue with the theoretical references of the research. These references are a result of literature review of academic texts (books; scientific articles; doctoral theses) and government documents (legislations; guidelines; statements; reviews; proclamations; laws) related to the central themes addressed in the research.

In one last introductory note we point out that the presented research was guided by a sociological approach. Thus, the aim was not to create instruments for the institutionalization of the environmental dimension or to make assessments/judgments regarding potentially ‘good’ or ‘bad’ practices of curricular environmentalization. Focusing on (con)texts in which the environmental dimension was potentially being inserted in physical education programs, the aim of the research was the identification of symbols and structures that constitute knowledge/expertise that are integrated to or that emerge from spaces of scientific production/dissemination, especially in higher education settings. The construction of this ‘sociocultural’ scenario/framework which shows actors and symbols that emerge and are consolidated within institutionalized structures was the result of an interpretative analysis, considering it was composed by a researcher that is immerse in history, thus, ‘soaked’ with history. From the same data other interpretations and other conclusions can emerge, if the ‘reading’ is performed by other eyes. However, the presented sociocultural scenario/framework contributes to the understanding of the historic manifestations surrounding the environmentalization of the physical education field and offers consistent elements for future research on the subject.

**Selection criteria for the corpus of analysis**

The corpus of analysis was composed of unit guides from academic units that address environmental issues and that are part of the curricular framework of physical education programs in Federal Universities of Brazil. The selection of these academic units comprised the following steps:

- Research on electronic addresses of Federal Universities of Brazil. The research focused on curricular frameworks of physical education programs seeking keywords that could characterize units that potentially developed discussions on synergies between environmental issues and physical education (e.g. "nature", "environment", "eco…", "adventure sports");
• Electronic messages to departments of physical education in Federal Universities of Brazil. The message asked if there was any academic unit in the department's curricular framework that addressed, in any way, environmental issues. This step was repeated three times in cases where the message was not answered;

• Electronic message to coordinators of physical education programs in Federal Universities of Brazil and to professors responsible for the selected academic units from the previous step. The message kindly asked for the unit guides of the selected academic units. This step was repeated three times in cases where the message was not answered.

Of the forty-four (44) Federal Universities of Brazil that have physical education programs, fifteen (15) presented academic units that address synergies between physical education and environmental issues in their curricular framework, being eleven (11) identified directly through research in electronic addresses and four (4) being identified through responses to the electronic messages sent to physical education departments. Overall, a total of eighteen (18) academic units were identified, considering two (2) of the fifteen (15) selected institutions had more than one academic unit that addresses synergies between physical education and environmental issues in their curricular framework. The final corpus of analysis comprised fourteen (14) unit guides from the total of eighteen (18) selected academic units. The remaining four (4) unit guides could not be accessed through the university's electronic address and was neither sent by the coordinator of the physical education program nor by the professor responsible for the academic unit.

Results and discussion

I here go back to the orienting question of the presented research: considering the global movement of sustainability in education as an 'environmental happening' and the consequential tendency towards the environmentalization of different areas of knowledge, what developments stand out in the field of physical education in the context of higher education reform (possibilities and critique)? Although empirical elements to answer this question are sought, there are also relevant theoretical elements to be analyzed in the recent history between 'new' transformed discourses in physical education and the overall developments in (environmental) education discourses. These discursive meetings are held quite differently in the way they happen in the 'North' and in the 'South', considering how geo-cultural/historical idiosyncrasies play out in local/national/regional settings (PAYNE; RODRIGUES, 2012).

Historically, physical education curriculum in the 'North' has been oriented mainly by exercise sciences (exercise physiology, biomechanics) and by sports education (skills acquisition ped-

31. The 'North' will be here referenced as a set of countries (United States, Canada, England and other Northern European countries, as well as countries that are geographically located in the southern hemisphere and that were colonized by the previously cited countries, such as Australia, New Zealand and South Africa) that historically develop distinct lines of research based on very different cultural roots from those developed in what are here being referenced as the 'South' or 'Latin' (especially South American countries, including, as well, 'Latin' countries in Southern Europe, such as Portugal, Spain and Italy). The paper by Payne and Rodrigues (2012) is recommended for a more in-depth reading on the critical frameworks and post-critics of environmental education discourses in its evolution in the 'North' and 'South'.
agories, athletic training, sports psychology) (PAYNE, 2005). However, environmentalization processes of physical education curricula in the ‘North’ show how certain trends and historical issues in the environmental education field (especially in its critical developments) have led to the formation of a distinct field of research and practice named ‘outdoor education’ in elementary and higher education sectors, especially in the last thirty years (PAYNE, 2001; 2005). Having its origin associated with critical developments in environmental education, outdoor education (at least initially) emerges as an ‘alternative’ field, seeking certain distance from the scientifically rooted development of skills and (militarized) training and instruction approaches dominant in physical education until the 1970s and that persist today in more ‘hybrid’ approaches (incorporating modern values to maintain conservative paradigms).

If there is a more visible movement in some countries (especially in the ‘North’) in which activities in nature are, to some extent, distanced from the traditional/conservative physical education curriculum, in Brazil this does not seem to be the case. On the contrary, there seems to be an academic movement towards the insertion of sports and recreational activities in nature (as well as, although shyly, of environmental issues) in the physical education curriculum, both in elementary and higher education sectors. This movement seems to be more in tune with the particular developments of critical discourses of (environmental) education in the ‘South’, especially considering the influence of democratic education related theories that call for ‘exchange in dialog’ (dialogicidade) and that highlight the potential questioning/transforming value of ‘meetings in diversity’ (GONZÁLEZ-GAUDIANO, 2007; LOUREIRO, 2012).

The insertion of environmental issues in physical education curriculum in Brazil is discussed in official documents (such as the National Curricular Parameters) and in scientific publications (especially in physical education journals). Overall, the call is for practice-related approaches, more specifically, for corporeal activities practiced in open environments and close to nature (in nature). However, these same documents and scientific publications point out some of the main problems of practice-related approaches to environmental education that focus on sports and recreational activities in nature, highlighting the pitfalls of potential ‘sportivization’ of these practices and the difficult dissociation from the leisure industry. Discussions on the insertion of the environmental dimension in physical education are relatively recent and the roles of dominant and peripheral discourses are still being played with some confusion/uncertainty, thus hindering the formation of stronger theoretical bases that allow more consistent progress toward an authentic epistemology and explaining the direct association with more consolidated fields, such as sports and leisure. Thus, at the one hand, actors involved with sports and recreational activities in nature seek legitimation ‘borrowing’ discursive elements from more consolidated areas (such as sports and leisure) and, on the other hand, sports and recreational activities

32. Over esteem of competition and of the spectacular visual element customary within performance sports, linked to interests of performing to others or to the compulsive aim to match aesthetic patterns established by mass media, overpowering the will of autonomous and meaningful corporeal practices triggered by intrinsic personal satisfaction and pleasure (Rodrigues; Gonçalves, Junior, 2009).

33. The paper by Rodrigues and Stevau (2010) is recommended for a more in-depth reading on the relations between sports and recreational activities and the leisure industry.
in nature, emerging as a modern ‘alternative’, can potentially be used as an excellent tool for modernizing discourses in the more consolidated areas, allowing ‘old’ or ‘traditional’ values to linger on disguised in new clothing.

Through this dynamic exchange, at the same time sports and recreational activities in nature acquire a unique ‘dressing code’ (continuing with the ‘clothing’ analogy), especially by incorporating modern social features, there is also a tendency to conservation of traditional/conventional features ‘inherited’ from geo-epistemologically consolidated fields such as sport and leisure, seeing how sports and recreational activities in nature still take wide steps on the conceptual esplanade of these more ‘traditional’ fields. This contradiction is evident, for example, in educational proposals associated with sports and recreational activities in nature, that (much like ‘outdoor education’ in the ‘North’) are, at times, based on critical and post-critical discourses in (environmental) education and, at times, based on discourses that clearly reflect the materialist/militaristic/hygienist tradition of ‘conventional’/‘old’ physical education, emphasizing training techniques for enhancing performance and the development of skills/abilities of physical dexterity. Plenty of such examples are found in the analyzed corpus of the research presented in this paper.

Thereby, the impending questioning of historical/current paradigms and the pedagogical potential of sports and recreational activities in nature is always swathed within a dualism of possibilities: every social phenomenon emerges within a geo-cultural/historic context which determines certain logic of dominance, as well as several emerging contesting rationales. In this sense, more important than the activity itself seems to be the way in which this activity is carried out, having as opposite poles among multiple possibilities the reproduction or contestation of legitimized aspects of dominance. Considering that the historical baggage of sport and leisure (both understood as sociocultural phenomena) is perpetuated by its ‘naturalization’ in social actors, critical pedagogical proposals through sports and recreational activities (including in nature) that do not recognize the possible limitations associated with the geo-cultural/historical contexts of these sociocultural phenomena have a great risk of not contemplating their goals. On the other hand, the acknowledgement of such limitations and the incorporation of critical/post-critical discourses in (environmental) education within the framework of physical education settings can exert a potential questioning (and possibly transformation) of historical paradigms conventionally associated with sport/leisure or even physical education in a wider context, considering critical discourses are based, generally, on the necessary transformation of elements that are consisted of and constituents of dominant paradigms. In a similar way, the questioning transformative potential of activities associated with the field of physical education (in general supported by ‘practical’ developments based on critical discourses) could also influence historical paradigms conventionally associated with the environmental field.

Overall, there are interesting potential developments in environmentalization processes conventionally associated with the physical education field and how it occurs both in the ‘North’ and ‘South’: on the one hand, the creation of a distinct field of expertise and knowledge-building (generally associated with outdoor education, as typically seen in the ‘North’) centered on the possible synergies between the environmental dimension and the overall scope of human movement may have the potential to distance critical possibilities emerging from these synergies from the historical (and usually disputed) paradigms of the ‘conventional’/‘old’ physical educa
tion field. In addition, the practical development of this 'alternative' field gains symbolic force by the emergence of a specific academic community, by creating tools for scientific construction/dissemination (scientific events, journals) and by institutionalizing particular issues in formal educational institutions (including settings of teacher training), as well as other (non-scholar) institutions. On the other hand, the insertion of emerging synergies between the environmental dimension and the overall scope of human movement in 'traditional' physical education contexts (including the curriculum, as seen in Brazil) could exert a questioning (and possibly transforming) role of historical paradigms conventionally associated with both the physical education and environmental fields.

**Final considerations**

A significant step towards the strengthening/legitimization of discourses surrounding the synergies between the environmental and physical education fields is the institutionalization of these discourses. The proposed analyzes described in this paper shows some evidence of how this is happening, more specifically, what dimensions of environmental discourses are being incorporated by physical education in higher education curricula, once again pointing out the relevance of academic units as representation of geo-cultural/historical/political processes that result from struggles of power that constitute/legitimate social structures.

Despite some interesting proposals highlighted by this analysis, including the incorporation of prominent features in contemporary environmental discourses and in particular (critical) movements of the physical education field, what stands out the most is the great diversity of objectives, contents and methodologies that constitute these proposals. This amplitude of objectives and contents can be attributed to a series of defining elements: the great influence in activities in nature from a range of different fields, such as sports, leisure and tourism; the relatively recent development of the environmental field, also resulting in a great variety of proposed concepts and methodologies (this can be easily observed in official documents and scientific publications in the area); differences between schools and institutes where physical education programs are located in higher education settings in Brazil, a result of historical developments of the area since its first roots in health and biological sciences to more 'modern' manifestations rooted in the human sciences.

Among the considerations about this range of definitions, concepts, features, dimensions and qualities associated with the objectives, contents and methodologies presented in academic units that are part of physical education curricula in Brazilian Federal Universities, one of the most worrisome is the lack of an epistemological basis or even 'common places' that may offer more consistent references in the construction of new/different dialogues between the physical education and environmental fields. On the one hand, there is an elusive multiplicity of 'possible pathways', making it possible to frame almost anything in one or another of the many presented objectives; on the other hand, some of the more prominent particularities of physical education that could offer interesting insights to environmental education, as described in different publications (e.g. OSBORNE; BATISTA, 2010; DOMINGUES et al, 2011), do not figure amongst
the proposals (for example, dances and cooperative and ‘traditional’ games – the latter referring to games with origins in ‘traditional’ communities, e.g. native or indigenous). In this sense, the whole debate still seems in need of theoretical and practical spaces that allow more significant encounters between what happens in contexts of research and what happens in contexts of education (including in higher education settings for teacher training), thus enabling a potential strengthening and possible legitimization of the physical education field as an expressive actor in the disputes that constitute the meanings of ‘environment’.

References


FOUCAULT, M. Estratégia: poder-saber/Michel Foucault. In: MOTTA, M. B (org.). Forense Universitária, 2006. (Ditos e Escritos, IV)


The MAS Eco Go Beyond programme: a successful sustainable development education programme model based on a public-private partnership in Sri Lanka

Amanthi Perera

MAS HOLDINGS (PVT.) LTD, SRI LANKA
Contact: amanthipl@masholdings.com

Abstract

The Eco Go Beyond Programme is a Sustainable Development Education Programme Model launched in 2006 as a community outreach initiative by MAS Holdings (a private company involved in Apparel Manufacturing, fashion and lifestyle) has been operational for over 7 years. It is based on a Public-Private Partnership between MAS Holdings and the Ministry of Education of Sri Lanka. The objectives of this programme is to create/raise awareness on the concept and practice of sustainable development, to provide an opportunity for the implementation of the knowledge gained, leading to an educated, active youth who will promote sustain-