In the context of the current 10th FISU Forum, it is very possibly no coincidence that education and environmental awareness are looked at through university sport while we find ourselves in the middle of A Decade of Education for Sustainable Development which was proposed by UNESCO. Just four years from the end of an initiative that was full of intentions and in agreement with the general trend of concern for the planet’s well-being, all efforts seem almost futile when faced with a deterioration that is defined as irreversible in some quarters.

Any effort that is conceived for guaranteeing the conservation of the environment in current times and in the future must be proposed and carried out as one more part in a global plan which affects all areas of human development.

Sport’s configuration is such that it is a sphere and vehicle in which the passing on of those environmental values have a place, and for this reason it must occupy an important position as an educational resource, in this way helping to strengthen the action carried out by more general environmental education programs.

This paper considers the role that university sport currently plays in the development of environmental awareness, and puts forward a series of action plans in the study, management and application of sporting activities and environmental education.

Environmental awareness versus environmental behavior

Brand (2002) comments that in the period between the 1960s and the beginning of the 1980s, the ecological conflict and the debate on nuclear energy were marked by a high degree of polarization, in which there was a clash between the contradictory cultural patrons: “the dominant social paradigm” against the “new environmental paradigm” (Dunlap, 1980). From the 1980s onwards, public concern over ecological problems and the technological risks of Western industrialized societies has given rise to an undeniable urgency in the face of current and future ecological problems.

In the new setting at the end of the 20th century and the beginning of the 21st, concern has been institutionalized in the majority of human fields, for example in politics, research, economic management and education. Even the individual’s closest surroundings have been affected, that is to say those of his or her private life, resulting in the formation of a totally authentic component in the culture and ways of life in advanced societies (Cerrillo, 2010).

At one time radical, ecological discourse now constitutes an element that is integrated into intervention plans, shaping a new way of thinking about progress and the global and everyday expressions of
action.

Equally, the “ecological” concept has been transformed from the “closeness to nature” vision to the “efficiency revolution”, the “technical and intelligent” operational systems, “product life cycle analysis” and “ecological management of the flow of materials in production” – the latter factors have become key as regards ecological reconstruction in the traditional ways of industrial life (Brand, 2002).

Faced with this mission statement and its detailing in protocols and action plans, a dramatic situation is encountered in which the environment is deteriorating on a global scale, with its significant repercussions at a local level.

One of the important issues is the current coexistence of these two circumstances, with the current inability to plan long-term conservation of natural resources for the continuity of social development. In this context, the concept “sustainable development” demonstrates all its value, given that current lifestyles and the time they will last do have an expiry date. A replacement development vision becomes necessary, leading towards some ways of life which are more aware of and responsible towards the newly discovered environmental reality.

The development of environmental awareness therefore now comprises of a growing sensitizing and perception of environmental issues (Aragonés, et al., 2006; Eder, 1995), and it appears that the development of said perception is explicable in reference to the cultural context of the people.

Nevertheless, environmental awareness, or the feeling of being concerned, only leads to a generic disposition towards positive action for the environment; in order that the aforementioned degree of environmental awareness is transformed into environmentally responsible behavior, other kinds of individual, group and contextually specific factors must also concurrently be in evidence (Aragonés, et al., 2006; De Castro, 2002). If indeed environmental behavior cannot to be considered as something which homogeneously penetrates our entire conduct, it may in a different way affect various aspects of everyday life.

This conclusion is found to be linked to the study of the relation between “environmental knowledge”, “environmental awareness” and “environmental behavior”; a study based around a fundamental axiom in which a greater knowledge of the environment would result in the development of greater environmental awareness, and this would be translated into responsible environmental behavior in accordance with these factors. However, the empirical conclusions which some of these studies arrive at obtain results which oppose each other, in some cases supporting this axiom, in others contradicting it, or with partial confirmations according to the dimensions of the “environmental concept”. All this contributes to that which is known as inconsistency, or a gap between awareness and environmental behavior (Bamberg, 2003; Cerrillo, 2010; Pato, et al., 2005; Ruiz, 2006).

When considering environmental mentalities as socially shared interpretations of the environment which have been acquired, reproduced and modified within the practices of everyday life, various kinds of characteristic models or dominant discourses have been proposed, such as the one presented by Poferl, Schilling and Brand (1997), in which five models are recognized: the “personal development project”, with environmental actions linked to self-fulfillment, personal development and proximity to nature; “environmental protection as a civic duty”, with principles of correction and viability, oriented towards regulatory obligation; “system or state orientation”, accompanied by a somewhat cynical attitude towards expectations regarding individual behavior, since individual efforts are seen as more or less pointless due to obstacles in the existing structures; “indifference”, in which environmental problems are understood, but the resulting behavioral expectations are rejected; and a final model - “nothing’s wrong”, in which the existence of urgent environmental problems are denied, and ecological claims are seen as a threat to the existing order and past successes.

This point consequently leads to the need for an integration of an environmental mentality with effective behavioral models, and future proposals in the social advance of the “environmentally sustainable”; this leads to the need for research allowing for better understanding of the elements in this reality. The field of sport is evidently closely related to the above, as is in this case the field of sporting practice among the university population.
Relation between Environmental Education, Physical Education and Sport

On recognizing the role of nature in educational and sporting processes throughout history, it can also be observed that the relation between sport, Physical Education and natural surroundings has developed in a similar way over time. If we go back to the middle of the 20th century, after a process of reflection the International Federation for Physical Education in its World Manifesto for Physical Education (FIEP, 1970) considered Physical Education to be “the component of education which systematically utilizes physical activities and the influence of natural agents: air, sun, water, etc. as specific means, in which physical activity is considered a privileged educational means, because it has an affect on the human as a whole” and “that Physical Education utilizes a wide range of physical activities, benefiting from natural settings and surroundings which are constructed for controlled facilities in such a way as to favor better access for people, more safety and practice time”.

Thirty years later, this same organization, adapting itself to the new social, sporting and environmental reality, is expanding the concept and reach of Physical Education, including the following in its new manifesto (FIEP, 2000): on the relation between Physical Education and Tourism, “That Tourism can be the road to sustained development and not to the destruction of natural areas”; and between Physical Education and the environment, in agreement with Agenda 21 of the United Nations Conference on Environment and Development, held in Rio in 1992, which determines that “All those responsible for any manifestation of Physical Education must make an effective contribution in order that this is developed and offered in healthy coexistence with the environment, with no negative effects, including utilizing facilities which are designed for this objective, and equipment that is preferably recycled with no contaminant materials”.

As a result, in the context of Physical Education, the concept of “natural areas of use” has extended to “caring for natural areas” due to their ecological value and the need to protect them. The increase in generalized awareness of the kind in which there has been a focus on human relations and the environment which sustains them is something that must be reconsidered, and which is also is accompanied by a generalization and disclosure of the environmental problem which, with assistance from means of communication, is becoming one more factor in the everyday life of people (Novo, 2003).

In the educational framework, on varying the global perception of relations with Nature, a new pedagogical vision of the environmental question must also be offered, a shift from educating by means of the surroundings to educating for the surroundings, something which according to Novo (2003) shapes correct conduct with respect to surroundings. This is one of the objectives of the teaching-learning process.

For its part, UNESCO in its International Charter of Physical Education and Sport (1978) indicates in article 5.3 that “It is essential that plans for rural and urban development include provision for long-term needs with regards to facilities, equipment and material for physical education and sport, taking into account the opportunities offered by the natural environment”.

In the 1990s, a new age began with the Rio Summit (1992) and the drawing up of the Rio Declaration and Agenda or Program 21 in response to the deep environmental crisis in progress at the time. As a result of this, in the field of sport the International Olympic Committee Sport and Environment Commission took account of the initiative raised in Rio, forming its own Agenda 21 with the Olympic Movement Action Program for Sustainable Development. This program would frame the development of the various world congresses for Sport and the Environment, as well as the Green or Ecological Olympic Games, whose philosophy and action would later extend to more events on a national, regional or local scale all around the world.

Taking this step meant more recognition for the need to protect natural areas and the environment in general, representing an element which was given much consideration in all spheres affected by sport.

With reference to these initiatives, the development of Sport and Physical Education was in agreement with the other proposals and general regulations relating to surroundings, environmental education and sustainable development, under the guardianship of bodies such as the IOC, FIEP or the Red Cross, or
various educational administrations.

A reflection of the above are the declared proposals, initiatives and regulations which have been gradually developed in Sport and Physical Education, and which directly affect the various spheres of intervention, such as the inclusion of contents relating to the protection and consideration of the environment in Physical Education in Secondary Education and the Bachillerato (pre-university studies) curriculum, in the training plans of sports coaches, in the models to be followed by active tourism companies, etc.

In Spain, the Physical Education curriculum in secondary education includes a specific block of activities in natural areas, the objective of which is to “carry out physical and sporting activities in natural settings which are under environmental impact, contributing to their conservation” (MEC, 2006, p. 711); or in the Bachillerato of Galicia (DOGA, 2008, p. 12.128), “to experience and practice physical activities in natural settings, favoring and demonstrating actions which contribute to their conservation”. These educational curricula will be the last - before entry into the labor market or university, or another type of professional training studies – in which students will have direct contact with sports in general, and those practiced when surrounded by nature in a more specific way.

From this point on, and in relation to the title of this paper, what is the definition of university sport, being as it is not only the practicing of sport at university (since this can be done when not in connection to the university contextualization of the student), and what is its role in relation to the development of environmental awareness?

With respect to this, it is interesting to take into account the degree to which sport is present among university students; said interest is based on an important fact: in a recent study carried out by Hoyos (2008), it can be observed that almost 50% of university students stopped practicing sport in the period between the Bachillerato and university - on entering adulthood it is a sensitive and extremely important time in the shaping of their future sporting practice. Segura y Cols (1999)

Universities are aware of this circumstance, and for this reason they make plans for an office or university sports club, the objectives of which are to prevent students from giving up sport, in this way prolonging the active and sporting lifestyles of a university population of 1,300,000 students in Spain. On the downside, these numbers are kept lower by lack of time, dedication to studies, etc.; on the upside, each university student has the potential to have a mind that is open, eclectic, and aware of the benefits of physical activity.

As a voluntary activity, university sport has great potential as a component of education, and represents practically the last chance for intervention in the formal educational period of a person. However, its true significance is to be found as much in the number of participants as in the characteristics of said participation, both of which are aspects about which currently there is not sufficient knowledge for estimating their actual repercussions.

Another of the issues to be tackled is the role of developing environmental awareness through university sport. A primary objective of this is to favor continuity in the practice of sport, personal development with reference to sport, and the consolidation of active and healthy lifestyles. From a personal point of view, the reasons for not practicing sport are many at this time in the person’s life, for which reason both organizations and particularly managers look for an increase in participants and regular support for proposed activities. So, how and where would we integrate said development of environmental awareness?

With respect to various work plans proposed by bodies of a higher status related to sport, one of them may be considered as the most important and continues to be a program for training: activities in natural settings. This is due to direct contact with surroundings, the possibility of sensitizing closely with the environment, the attraction of an adventure in its development, and proximity with tourism along with appreciation for landscapes and natural elements – all this constitutes an important step towards appreciating conservation of the environment, and consequently the development of an environmental awareness leading to behavior which is respectful towards the environment.
Appreciating the value of natural areas, understanding the need to protect them, and acquiring behavior for a sustainable use of the same during the practice of sport seem to be very important; for this reason organization and training become essential when considering the possible effects that sporting practices can have on the natural surroundings and the way to minimize them.

On the other hand, the acquisition of regular habits in other everyday tasks relating to sport would represent the other sphere of action; these tasks include behavior such as travel to the competitions, the use of water and the use of materials and products which are respectful to the environment. These are derived from the guidelines proposed by the Charter of Sport and the Environment, or from those released by Green Cross.

In accordance with the reflections and proposals presented in this paper, a necessary starting point for consideration is to realize what influence university sport can have for developing environmental awareness, and its confirmation of effectiveness in behaviors obtaining sustainability. The answer to this question is covered in the study of the meaning of sport in university life, of the activities people take part in, of those activities people would like to take part in, and the role the activities play in the natural settings of the general sporting program. Once this point is reached, it would also be appropriate to ask what the activities for environmental public awareness within the framework of university sport should consist of. And if it would perhaps be recommendable to begin with an explicit mission statement setting out the directives established in documents such as the Guía sobre el deporte, el medio ambiente y el desarrollo sostenible (Guide on sport, the environment and sustainable development) (COI), el Manual sobre el Deporte y Medio Ambiente (Manual on Sport and Environment) (COL 1997), Manual de Buenas Prácticas y métodos de educación y concienciación en el Desarrollo Sostenible a través del Deporte (Manual of Good Practices and methods of education and public awareness in Sustainable Development through Sport) (GCE).

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