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Public Policies on Education for Sustainable Development

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Definition

Public Policies on Education for Sustainable Development focuses on policy options to improve the integration of environmental considerations into the working of the economic system and to address some of the social and educational consequences of better integration. High priority needs to be put on building stronger support within governments and society for comprehensive implementation of sustainable development policies. Sustainability depends on maintaining basic ecosystem services, a healthy environment and cohesive societies and balancing these elements will require stronger public policies on education.

Introduction

The concept of Sustainable Development became known and widely used after the publication of the Brundtland Report, which resulted from work in 1987 by the United Nations Commission on the Environment and Development in 1987 (UNCED 1988). However, judging by the number of problems that the definition of Sustainable Development poses, and even by its amplitude, it is to be expected that different positions, visions, and versions have emerged and been consolidated over the last few years.

The idea of Sustainable Development, in some interpretations, shows alternative ways in which society could develop; but in other interpretations, unfortunately, such alternatives have been misinterpreted. That is why, in some interpretations, Sustainable Development, by virtue of the propositions examined in this entry, has been seen, mistakenly, as a barrier to the advance of industrialization and even to the development of means of production.

However, Sustainable Development is not aimed at preventing economic growth and social advance; rather it aims to support the creation of a model of human, social, economic, and, chiefly, environmental development in a more conscious and balanced way, focused on concern for the future (Murphy 2012).

It is well known that there are a number of interpretations of the concept of Sustainable

Development, which Giddings et al. (2002) state is widely debated in a range of meanings. This is because, according to these authors, the concept is embraced by great companies, governments, social reformers, and social activists, all of whom put their own interpretation on what Sustainable Development means.

From this perspective, Dryzek (2005) recognizes that there are several approaches to environmental issues and to the concept and analysis of Sustainable Development, and he emphasizes that there are several environmental discourses which in some cases complement each other but also compete in solving environmental problems.

According to what Cavalcanti (1995, 1999) had noticed, the concept of Sustainable Development proposes an alternative to the traditional theories and models of development, worn out in an infinite series of frustrations.

As far as the environment is concerned, such analysis is necessary in view of the fact that, as we know, today's society has developed a consumerist culture and, in addition, is insufficiently concerned about environmental issues. In fact, as one generation succeeds another, there is, worldwide, a growing detachment from the idea of conserving material goods and maintaining their durability.

In other words, modern generations see the promotion of the idea of disposable goods and the substitution of what is new, or most modern, or even most current. The big problem is that to promote this constant substitution, as fast as technologies advance, and follow what human creativity is able to produce (as a novelty), everything that is outdated tends to become more and more obsolete and unusable. In the sequence, they are discarded, becoming a sort of "rubbish," which increasingly accumulates in the environment.

The most disturbing thing, among so many, is that this "throw away" culture has become, over time, so ingrained, that industry itself is producing consumer goods which are suitable for discard after little use.

As is well known, smartphones, computers, the recent *Tablets,* in addition to home appliances, televisions, and even other consumer goods, such as shoes, clothes, bags, among others, are being produced by industry in order not to have, in practice, a long expiry date. Thus, such goods become obsolete in a short time, so that they necessarily must be replaced.

The tendency is that, over time, more and more materials and goods are disposed of, to the point where the amount of "garbage" accumulating on the planet is beyond measurement.

In face of all these socio-environmental problems, some questions arise which are particularly troubling, especially for those who have already realized the need to maintain a balanced and sustainable environment. For example, What happens to used products? Where does the waste caused by production processes end up? What is done, collectively and individually, to avoid environmental impacts?

When thinking about the answers to such questions, one is aware that nation states do not have enough structure to properly recycle and/or correctly deposit all the rubbish that is currently produced by society. There is no doubt that much, if not most, of the waste produced accumulates in deposits which pollute the environment, often with irreparable consequences.

Thus, the only feasible way to curb the damage being done by human beings involves the awareness that it is necessary to reduce over-consumption. This implies conserving consumer goods as much as possible and, when it is unavoidable to discard, that it is done correctly, in appropriate places and whenever possible items are reused or, wherever possible, recycled.

Such awareness, however, is not easily achieved. It necessarily involves, above all, a significant change in the culture of society members. This context demands no less than a decisive change from a culture of discarding, to a culture of conservation, preservation, and concern for the environment in which society lives. Thus, this study seeks, in the face of this entire problem, discussion of a matter of paramount importance to the aforementioned needs:

How can we educate and raise the awareness of the population so that each individual can feel disturbed about these issues? Similarly, how to educate the population and raise awareness in

order to develop an understanding of what the necessary aim, that is, to inculcate the idea of preservation and care for the environment in which human beings live, over against the idea of exaggerated and unnecessary consumerism and undue and unconscious disposal?

To answer such questions, several different approaches are necessary, because members of society differ in their backgrounds, experience, and attitudes. A leading approach must be education. With proper education, directed and focused on highlighting such points, it is possible to achieve some, if not all, of the objectives set out above.

Education is also a duty of the State, which must inevitably be the main protagonist in initiating this awareness. The State, as a representative entity of a general will (society), seeking to ensure the well-being of humanity now and in the future, plays a fundamental role in this process of re-education.

Thus, it is worth, in this study, identifying some considerations about the State's actions, as a way to raise public awareness about environmental issues, especially through the development of legislation aimed at environmental education and, above all, public policies aimed at teaching members of society to care increasingly about environmental preservation.

Educational Public Policies

Analyzing etymologically and separately each word of the expression "public policies," it is observed that this expression is composed of words of different origins. The word "politics," of Greek origin, derived from the word *politike*, indicated the art of governing a city ("polis") state. The word "public," however, has a different origin, derived from the Latin word *publicus*, which means concerning the people (Nascentes 1955).

According to Oliveira et al. (2010), public policy, in the etymological sense, refers to the participation of citizens in decisions of the state – of the territory, that is. This can be characterized as the possibility of people influencing decisions of the city.

Historically this participation took on distinct features, in time and space, having happened either directly or indirectly, through representatives. Either way, an agent – the State – has always been crucial in the realization of public policies.

Analyzing the thematic in the social-scientific context, a different view is obtained, even more broadly, because "public policy" is not restricted only to the involvement of people in the decisions of the State, but also in the way that the State acts in response to its people.

For Souza (2003), it is possible to understand succinctly what public policy is as a field of knowledge that simultaneously seeks to put the government in action and/or to analyze this action (independent variable) and, when necessary, propose changes in course and/or understand why and how actions have taken one course instead of another (dependent variable). In other words, the process of creating and manipulating public policies is one through which governments translate their purposes into programs and actions that will produce desired outcomes or changes in the real world.

As can be noticed, the expression in comment (Sustainable Development) has a broad scope, since it is susceptible of diverse interpretations. It is therefore necessary to restrict the subject or area of actuation, so that it is possible to achieve a deeper, more incisive, and safer approach. Thus, precisely because of the subject's aforementioned breadth, it is important to approach a specific area when it comes to public policies, so that it is possible to analyze the theme safely and appropriately.

The approach to be used involves the educational relationship instituted by the school as a starting point for the analysis of Public Educational Policy, an institution that basically represents the structure of several other subsystems of Education.

Oliveira et al. (2010) made an interesting analysis, describing the concept of Educational Policies. They say that it is necessary to have a specific environment for educational practice, which expresses itself in the institution of the school, which works as a small community, linking different parts of a complex procedure:

students, teachers, servants, parents, neighborhood, and state (as a political society that defines the system through public policies). Sauvé (1996) confirms this when she emphasizes, "This is the environment of a human collectivity, a shared living place, a political concern, the focus of critical analysis. It calls for solidarity, democracy and personal and collective involvement in order to participate in the evolution of the community."

Thus, educational public policies, in one of the main definitions, refer to choices and decisions of the government which have an impact on the school environment as a teaching environment. As can be seen, the school-education relationship is extremely important, being constructed from interpersonal and intersocial interactions, involving governmental decisions that reflect directly in diverse sectors of society.

In short, education proves to be a real tool for the creation, implementation, and instrumentalization of Public Policies, since it is enveloped in an environment prepared and formed by an entire social apparatus focused on "educational doing," which has a true transforming power and discipline.

In this sense, Sauvé (1996) mentions: "The pedagogical process aims to transform each of us so that we may transform our daily reality: each person must become a creator of, and actor in, his or her own environment."

Public Educational Policies Focused on Recycling of Materials for Sustainable Development

As seen, there is a historical process that explains material consumption growth as a function of economic growth. Thus, it is necessary to impose an environmental limit so that, with a view to the well-being of present and future generations, excessive and damaging consequences are avoided.

One of the measures for imposing this environmental limit is present in public educational policies. How it was seeing, the education has power to transform and to the awareness the population for proper treatment of garbage produced

and, especially, for recycling, aiming, among other measures, the appropriate destination of production and wastes of consumption, as well current and future availability of nonrenewable natural resources.

According to Marchi (2011), one of the international institutions that seeks to establish strategies and public policies to act in the minimization and management of waste is the United Nations Environment Program (UNEP) that has the mission to promote the conservation of the environment and efficient use of resources in the context of sustainable development.

Marchi (2011) also notes that the International Environmental Technology Center (IETC), a division of UNEP, has published a report on the global solid waste scenario that allows countries to self-assess and compare their performance in urban cleaning and which encourages adoption of environmental education practices associated with solid waste management (United Nations Environment Program 2005, 2015). In a world perspective, Marchi (2011) and UNEP (2015) view a great diversity of actions both in waste management and in effective implementation of environmental education projects that seek to minimize possible impacts generated by inadequate discards.

Thus, it is evident in Africa that municipal power is usually responsible for urban cleaning services. Waste collection is carried out in a variety of ways, from men and carts, to compactor trucks. Solid waste collection on the continent ranges from 20% to 80%, accounting for an average of 40–50% throughout Africa, often unloaded in open air on the ground, without concern for the preparation of the site or aspects (dumps) and in some areas without proper environmental education policies and awareness processes.

In North America, many problems of pollution and waste are caused by continued economic growth and dependence on high levels of energy and natural resources. In recent years, recycling has been more effectively considered in North America due to increased costs of disposal of solid waste, difficulty finding landfill sites or incinerators, diffusion of environmental education

programs and policies, and public concern for the environment. In North America, source reduction programs were implemented through education, research, incentives, regulations, and technological development (United Nations Environment Program 2005, 2015).

The United Nations Environment Program (2015) points out that in the largest cities in Australia, Japan, South Korea, and New Zealand, there is a high degree of reduction of solid waste, source separation, and recycling, stimulated by environmental education public policies, new practices, and the collection fees. In other Asian countries, such as India, Vietnam, and China, there is progress in solid waste management, but several problems and difficulties are still found.

In European Union countries, reuse and recycling are part of practices incorporated by citizens and are necessary and essential for proper performance of integrated management systems. However, there are considerable variations in European practices of reduction at source, recovery of materials, and recycling. These variations occur from methods used, environmental education and awareness programs implemented, public policies focused on sustainable development, degree of political and fiscal commitment, available markets, and equipment used for reception of discarded waste (United Nations Environment Program 2005, 2015).

Some Latin American countries, according to the United Nations Environment Program (2015), are particularly advanced in waste management efforts mainly due to public and educational policies, including Argentina, Brazil, Colombia, and Ecuador. In this way, it should be stressed that although there is still a need for real commitment, Brazil has made great strides in this direction. On August 31, 1981, Law No. 6,938 was published, which regulates the national environmental policy and regulates the administrative structure of protection and environmental planning (Antunes 2005).

This legal diploma provided a real milestone in Brazilian legislation, given that in its own text the influence of the movement caused by sustainable development could already be noticed.

Article 4, item I, provides that the compatibility of economic and social development, with preservation of the environment quality and ecological balance, will be one of the main objectives of this policy.

It should also be noted that on August 2, 2010, Law No. 12,305 was published, which established the National Policy on Solid Waste (Brasil 2010). In this legal document, there is a clear emphasis on standardization of waste disposal processes, including nongeneration, reduction, reuse, recycling, and treatment of solid wastes, as well as environmental disposal of wastes.

The expressiveness of the subject in question is clear, since its repercussions extend to several areas of society and are also the target of several types of public policies instituted by the State.

As well known, recycling is the use of garbage, making it useful again. Such a tool demonstrates potential to boost true sustainable development, since it avoids environmental costs from material extraction from nature as well as eliminates the need to remove debris and waste from the production and consumption process.

In addition, according to Montibeller-Filho (2008), recycling is seen as the future in solving the ecological crisis of waste disposal, having a prominent place in public educational policies.

This is because, notoriously, the school space, in the wake of "educational doing," is the great modeler of customs and ideologies of our society. This is because in this microsystem, present in almost all communities, there is concern to "be more," that is, to seek the best and the improvement of human beings (Oliveira et al. 2010).

Thus, in order to take advantage of the transforming potential of education, Law No. 9,795 was published on April 27, 1999, providing for environmental education and instituting the National Environmental Education Policy (Brasil 1999).

The article 10 states that environmental education will be developed as an integrated, continuous, and permanent educational practice at all levels and modalities of formal education in order to highlight the importance of environmental education for the future of society. In addition, its article 4, as one of its principles, highlights

the conception of the environment in its totality, considering the interdependence between the natural environment and socioeconomic and cultural aspects, under the focus of sustainability.

Obstacle to the Materialization of the Public Polices Focused on Recycling of Materials for Sustainable Development

While Sneddon et al. (2006) have optimistically pointed that since Brundtland Report, the world is a very different place, partly by account of the report repercussion itself, but also largely because of changes that were difficult to perceive when the report was prepared, on the other hand, according to Hopwood et al. (2005), it is possible to note the growth of various problems in the environment and/or society.

He argues that such problems are rooted in basic and fundamental characteristics of today's society, especially in how humans interrelate and how they relate to the environment. For him, a transformation in the social environment and/or human relations with the environment is necessary, so that a growing crisis and even a possible future collapse could be avoided.

Notoriously, difficulties are faced on a daily basis so that principles established in legislation can be applied, or even understood by society. This is due to several reasons; however, it is necessary to highlight, among the different causes, the problem of world's population's culture referring to the whole question of produced garbage destination as well as question of the need of environmental preservation and care for the environment as a whole.

Evidently, nowadays it is still possible to identify an international cultural tendency to the excessive consumption, that is, unconcerned with the future. This variable, in particular, ends up generating a damaging collective consequence because of individual actions contaminated by disregard for the next and even for the next generations.

In addition to this issue, we also highlight the problem of the national population culture, regarding the disposal of waste produced.

This is highlighted, both with regard to household waste and to what is analyzed in relation to the garbage produced on a daily basis, on the street, at work, in leisure time. This is what happens in addiction to garbage produced due to the disposal of durable goods, replaced more and more frequently, in face of industry advance, technology, and modism to always substitute owned goods by newest and most modern ones to detriment of conservation.

As long as there is unconcern about the issue of unnecessary and excessive consumption and the importance of conscious disposal (and the need to reuse and recycle what is discarded on a daily basis), there is a serious risk of more immeasurable and irreversible damage to environmental conditions.

Therefore, the creation and encouragement of Public Educational Policies is valid because, as seen in the course of this work, such measures have the capacity to change and stimulate the human being, who, individually, has responsibility for the whole community.

Of course, individual actions, summed up in the same direction, represent the whole movement of the collectivity, which must be directed towards the sustainability of relations, not only for human relations to be maintained, but also for the human species to perpetuate in balance with the very environment in which it lives.

In other words, it can be said that with education, there is certainly much more chance of fostering a change in national culture, in order to promote improvements in environmental aspects.

Conclusion

In sum, the present work has sought to elucidate and explain the importance of government action, through public educational policies, to give effect to proposals set out in its own legislation, aimed at protecting the environment and realizing its potential for the achievement of sustainable development.

As seen, it is an expressive movement that needs a real commitment so that what is laid down in law has an effect in the real world.

Although many countries all over the world, including Brazil, have been developing legislation aimed at improving the idea of, and the search for, sustainable development, there are cultural and educational problems that prevent the realization of this substantial potential.

In other words, although there exists a genuine effort to give effect to the proposals theorized about sustainable development around the world, some problems are apparent which make it difficult to achieve that objective. Many such problems doubtless arise from the issues with interpretation of the term itself; but most of all they arise from the general lack of concern with the environment, which is culturally rooted. As seen above, the cultural problem, between others points of view, is directly related to the education of the population in general, and so the resolution of all the problems in question must start with improvements in education, as well as through public education policies.

As is well known, although in general legislation provides an incentive for environmental education, a large part of world society is not aware of, or chooses to ignore, the impact of personal actions, however minimal, on the environment.

Individual, as well as state, action is necessary, action by each individual that is part of that society, collaborating either with conscious consumption, selective collection, or in any way participating and encouraging the recycling processes organized by the state. Therefore, the essence of environmental educational public policy, that is, its main purpose, is to educate the population, prepare current and future generations, and create programs to encourage culture for the continuity and well-being of the human being (Sorrentino et al. 2005).

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