

Reflections on How the Environment and Gender are Educational Innovations: Brief Note

Ricardo O. Russo

*Ph.D., Professor, University of Costa Rica and De La Salle University
(<https://orcid.org/0000-0003-3530-1834>)*

Marisa D. Russo

*M.A., Adjunct Lecturer, City University of New York, Hunter College,
Editor-in-Chief Nueva York Poetry Press
Director Nueva York Poetry Review
(<https://orcid.org/0000-0002-3437-7266>)*

Abstract: The concept of sustainability in any type of process is related to the so-called environmental crisis, which many authors attribute to the social and environmental problems generated by a predatory development model of nature and cultures; in itself, this crisis is of anthropic origin; and as such is related to economic development and the development of human and social capacities; however, respect for the environment has not been parallel, and this disrespect is also the cause of the environmental crisis. This brief, reflective historical note does not address all the issues involved in sustainability applied to the processes of Educational Innovations (EI) but emphasizes only a few. It is just an introduction to the debate on sustainability and its relationship with innovative aspects of education.

Introduction

Ecology supposes a new paradigm, that is, "a way of organizing the set of relations of human beings with each other, with nature and with its meaning in this universe", and this discipline can be a "new alliance with creation, an alliance of veneration and fraternity" (Boff, 2002). Sustainability has diverse conceptualizations and multiple dimensions that have been approached from different angles in recent decades. As a consequence, the term sustainability can mean very different ideas and concepts because it can be applied at different levels or to particular processes. The challenge lies not in the definition of the concept, but in the identification of the characteristics of the management that promote it. The notion of sustainability was originally developed in a bio-physical framework, as a response to the awareness of the scarcity of natural resources (considered as isolated physical stocks). Currently, this notion is being applied in a context of greater scope, which has often produced confusion in its use, since the policy implications that derive from it, as originally used (stocks), do not give the right signals when applied in other areas, such as particular processes in complexity. The concept can be understood in different ways, either at the "macro" level (global biophysical systems, development styles, social processes, regional economies, etc.) or at the "micro" level (more delimited unit of analysis, ecosystems, agroecosystems, productive systems, among others). But regardless of the level or scope, the system must remain stable over time. In other words, the input variables of any system or process must be equal to or greater than the output variables, regardless of the interactions of the state variables, internal to the system (Gallopín 2003). Thus, sustainability must be understood as a multidimensional concept and as the result of the interaction of ecological, economic, social, cultural, and political variables. From this, it is interpreted that the capacity of the environment to assume human pressure (resilience) allows its natural resources not to be irreversibly degraded (Cáceres, 2008).

What is the relationship between sustainability and sustainable development?

The concepts of sustainability and sustainable development (SD) should be examined from a systemic perspective; this can range from an anthropocentric approach to an extremely ecocentric one and they are related to the criteria of sustainability very strong, strong, weak, and very weak (Gallopín, 2003, 2020); which in turn coincide with the principles of sustainability formulated by the economist Herman Daly, who states that they allow progress towards sustainable development. These principles are a) For a source of renewable resources, not to consume it at a rate higher than that of its natural renewal; b) For a non-renewable source, do not consume it without considering developing a new "source" that, once the first one has been exhausted, allows us to continue enjoying the same benefits (creating substitutes); and c) For a waste, generate no more than that which the corresponding sink can absorb and neutralize naturally (Constanza and Daly, 1992).

Daly (1991) envisioned more than three decades ago that wealth and economic growth are not likely to produce an SD because of how much industrial countries consume and discard. This implies that the SD theory does not assume that the economic rationalization of the market necessarily solves environmental problems. Therefore, the defenders of the SD advocate the need for ecological rationalization, with environmental impact assessments, mitigation of environmental problems, even if it is expensive, and defense of the precautionary principle in favor of natural resources (*induvio pro natura*). Another approach to the concept of sustainability was stated by Gadotti (2002), in his words "development should be an integral process including cultural, ethical, political, social and environmental dimensions, and economic". This makes us think that there are two logics, one economic (the neoliberal) and the other holistic (that of the new paradigm), not only different but contradictory, the first exclusive and the second inclusive; and that both are combined in the concept of SD. From this perspective, the protection and preservation of the environment are fundamental; given that the most vulnerable people on the planet rely heavily on land for a living, which means that fresh air, clean water, healthy ecosystems, and accessible and clean economic energy are the essential components needed to create a better life.

Gender equity and environment, are educational innovations

At present, a relatively small number of people are doing a lot to help change our current climate change and global warming crisis, from educational campaigns, technology innovations, protests, laws, and international treaties. We believe that a vital element is missing that will change our trajectory to turn complete apathy into a global awareness of the fatal consequences of climate change and global warming. If we could create a critical mass of people with this attitude, it stands to reason that they would pressure educators to do more. So, how can we motivate millions of people and organizations to take action against climate change? This is how we envision the introduction of climate change as a topic to be emphasized in teaching and learning techniques for sustainable development in the future.

Change of global consciousness

We are living in a multi-dimensional, global society, where managing information systems is crucial to the success of any activity or action in any field. However, when we talk about educational innovations, it is not about tools to facilitate teaching, but about concepts that inter-relate different fields and disciplines. So, the line of thought "*gender equality, environment, and sustainable development*", is knotted with the approach known as "gender in development" (GED) that was consolidated in the nineties (Miller and Razavi, 1995). It states that discrimination against women is expressed mainly in our societies through (a) the gender division of labor and the consequent almost exclusive allocation of responsibility for child-rearing and domestic work to women; (b) unequal access of men and women to productive resources and their benefits; and (c) limitations on participation in decision-making processes and access to public authority in its various expressions. From this view, the construction of gender is considered one of the intermediary agents of the relations between women and men with the environment (Rico 1998). From the concept of gender, there is a profound change in the delimitation of the object, we no longer speak only of women but of the social relations that they establish and the system of power in which they are inserted (Miller, 2010). The claims of "gender, environment, and sustainable development" make it possible to identify the differences between women, emphasizing the social, historical, and cultural character of the processes of subordination and negotiation in which they are inserted. The inclusion of the gender perspective, in the framework of innovations in education, has been recognized by many authors who say that gender applies to all educational processes and is an issue of innovation and educational change that has been possible thanks to the contributions of feminism. (Morales, 2010; Hawkesworth, 2006; Rebollo Catalán, 2013). Graciela Messina (1996) had stated earlier that ..."*an educational process is innovative only if it alters the sense of traditional experience, with meaningful contributions in the areas of participation and social solidarity, cultural recovery, the integration of education and work, and the autonomy and creativity of the actors*". The concept of autonomy is one of the most studied aspects by feminist theorists, and it has been a topic of constant revision and debate. The claims of women's movement for autonomy refer to the existence of a multiplicity of social themes, demanding their own space, their voice in the society and need to satisfy their particular demands; and appears to refer to the recognition of diversity, differences, and plurality." (Meynes and Vargas, 1991).

Our final reflection is that both the environmental issue and the concept of gender equity are educational innovations, but they must be accompanied by genuine collaborative work between teachers and school management so that they are truly educational innovations.

