



## Leading article

### **The training of competent professionals based on sustainable development from undergraduate**

### **La formación de profesionales competentes en función del desarrollo sostenible desde el pregrado**

### **A formação de profissionais competentes com base no desenvolvimento sustentável desde a graduação**

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The Millennium Development Goals (MDGs), which produced the most successful movement against poverty in history, serve as the starting point for the new sustainable development agenda. Since the 1992 United Nations Conference on Environment and Development - the Earth Summit - in Rio de Janeiro, Brazil, the world has decided to follow a new path towards human well-being, that of sustainable development. The concept of sustainable development, presented in Agenda 21, recognized that economic development must be balanced with growth, that it satisfies the needs of people and protect the environment.

The concept of education in sustainable development, since its introduction, has been evolving in recent decades, based on the urgent need to intervene to stop the deterioration generated by anthropic activity in the natural environment and, as a consequence of this, in the Social. Along with this concept, work has been done on the form and occasion of introducing it throughout the training process of people: "Training professionals committed to sustainability requires a change in the interpretive models in the relationship of the human being with the natural and sociocultural environment; it represents a means of enabling the experience of alternative models more in line with the values of sustainable development, and implies a reorientation of higher education towards sustainability" (Aznar, Ulls. 2009).

It is important to recognize the existence of trends in the process being studied in the international context:

- Recognition of the role of universities in the need for a change in individual and collective attitude towards the Environment.
- Design of multiple variants for the introduction of this concept throughout the training process of people.
- Recognition that universities, as trainers of future professionals, have an important role in introducing sustainability in the students' curriculum, which is called Curriculum Sustainability.
- Need for a change in interpretive models in the relationship of the human being with the natural and sociocultural environment, which impacts the training of professionals committed to sustainability.

One hundred years after the University Reform of Córdoba, Cuban Higher Education joins the efforts to consolidate it as "a social, strategic, public good, a duty of the State, a space of knowledge, a human and universal right", which "responds to the objectives of sustainable development in an integrated manner"(IESALC-UNESCO, 2018).

For this reason, the harmonious relationship between university and society is recognized by the Minister of Higher Education, Dr. José Ramón Saborido Loidi, at the opening of the 2020 International University Congress: "The University exists in society, for society and for the society. It is part of it; therefore, it will always contribute to guaranteeing, in the first place, the social interest, which, in education, lies in gradually achieving full access, training capable professionals committed to their country" (Saborido, 2020).

Currently, Cuban Higher Education is focused on maintaining its *model of a modern, humanistic, universalized, scientific, technological, innovative university, integrated into society and deeply committed*

*to building a prosperous and sustainable socialism.* A university characterized for the formation of values and for the quality assurance of its process's nouns, in order to achieve a graduate who possesses personal qualities, culture and professional skills that allow you to perform with social responsibility, and that promote their education for life. In summary, we aspire to the formation of a competent professional, which means that he or she is highly qualified and committed to solving the professional problems of the base link. One of the challenges to overcome to achieve what above, is to promote a continuous increase in quality in the comprehensive training of the country's professionals, based on the improvement of their management.

The VI Congress of the Communist Party of Cuba, held in April 2011, approved the Guidelines for the Economic and Social Policy of the Party and the Revolution. In them it is declared, among other aspects: to give continuity to the improvement of education (Guideline 143); increase the rigor and effectiveness of the educational teaching process to increase the efficiency of the school year (Guideline 151); and update training and research programs in universities, based on the economic and social development of the country and new technologies (Guideline 152).

The content of these guidelines required Higher Education to carry out an in-depth review of the training and development programs of Cuban professionals, in correspondence with the new scenarios and complex conditions that are glimpsed for the next decades of the 21st century. These analyzes have resulted in the proposal of a set of policies for the improvement of the process of continuous training of Cuban professionals.

Consequently, the Ministry of Higher Education (MES) of the Republic of Cuba, in its eagerness to contribute to raising

scientific and technological research in all its structures, has given marked priority to the process in which the lines of research of greater significance or opportunity in the basic and applied sciences, good practices in conducting research and doctoral and postdoctoral training, the concentration of human, financial and material resources and the support of international relations; articulating it harmoniously with undergraduate and postgraduate training, to achieve growing impacts on the economy and society.

Thus, the University of Pinar del Río "Hermanos Saíz Montes de Oca" has identified as one of its main lines of research the "Comprehensive management of professional training processes", which becomes the contextual framework in which the proposal of this work, which gives continuity to others; from a more comprehensive look focused on the necessary link with the SDGs.

The objective of this work is to base the process of training competent professionals based on sustainable development during undergraduate.

The foregoing supposes the search for comprehensive answers to the problems related to the mission of the university and the sustainability of the training processes from the undergraduate; what materializes in a change of attitude in the relations between the University and the Environment.

The conception of continuous preparation in the training of professionals is based on the idea that man is educated throughout his life and the recognition of all the educational possibilities offered by life in society, an idea that is specified in objective 4 of the 2030 Agenda and that has been in the vision of pedagogues since the 19th century in Cuba.

In Cuban Higher Education, despite the clarity regarding the necessary training throughout life, and the fact that the current training model requires both a period of preparation for employment and a broad and solid system of postgraduate education, there is no a harmonious and coherent link has been achieved among these three elements that promotes continuous training of professionals ; this has limited the essential specialized performance required in production and services, and the potential development of the highly qualified workforce (MES, 2016).

Undergraduate training in Cuba, within the framework of the current conditions derived from the improvement of Higher Education, is a process that is characterized by its insertion in various contexts of training-action, where the University is linked with the training organizations, transforming them in spaces where the professional training of university students takes place and, simultaneously, acts responsibly, weighing one or another component of the process and diversifying the professional training processes. In them, the professional performance modes of the students are developed and there is an interaction with the subjects that intervene in the training process (EPS students, teachers, specialists and tutors), which frame the progressive interrelation between the subject in development and environment at various stages of the educational process. They are: the original training institution (the University), the Municipal University Centers (CUM) and the micro-universities, which integrate and harmonize the experiences of these contexts (Breijo, 2009).

However, the experiences that are experienced directly in labor entities, while being an advantage for their training, make this process more complex, given the diversity of situations and professional problems that arise in compliance in these contexts of their professional duties.

Next, a set of premises are recognized for the consistent application of the training process of professionals during the undergraduate course.

Undergraduate training, which allows the active and creative appropriation of the logic of science (specific basic aspects of each science) and the logic of the profession (specific basic aspects of each profession), and develops in the graduate modes of professional performance competent; that allow you to transform society in an innovative and creative way, giving answers to the most general and frequent problems that arise in the base link of the profession. At this stage, the harmonious and coherent action of the universities is needed, together with the training organizations, to promote active participation, the critical and constructive spirit of university students, in their training as professionals (Breijo, Cala, 2020).

The foregoing leads to the approach of a new vision of the training process of competent professionals, which demands changes in the management and dynamics of training processes in favor of a significant impact on sustainable development.

From this perspective, the continuous training of professionals in Cuba is considered as a process of training and professional and human development, in which the interaction between the Universities and the employer organizations plays the fundamental role, and in which the students and professionals assume a leading role in this process.

In this way, efforts to improve the management of the undergraduate training process for professionals, effectively linked to Cuban society, are essential; considering the necessary diversification of alternatives to be used to guarantee the continuity and quality of the training of professionals in favor of sustainable local development, especially with the complexities that post-pandemic times represent, which undoubtedly impose challenges on innovation and creativity in the forms ways of managing this process in its multiple variants.

## **BIBLIOGRAPHIC REFERENCES**

Aznar Minguet, P., Ulls Solis, M.A. (2009). La formación de competencias básicas para el desarrollo sostenible: El papel de la Universidad. *Revista de Educación*. N° extraordinario 2009, pp 219-237.

IESALC-UNESCO (2018): Plan de Acción CRES 2018-2018. Principios Declarativos 1 y 7.

Congreso Universidad 2020. Conferencia inaugural. Ministro de Educación Superior.

MES. (2016). Documento base para el diseño de los planes de estudio E.

Díaz-Canel (2022) Congreso de Educación Superior Universidad 2022 "*Gestión de gobierno basada en ciencia e innovación: avances y desafíos*". p. 7

### **Conflict of interests**

The authors declare no conflict of interest.

### **Authors contribution**

All authors managed the information, reviewed the writing of the manuscript and approved the version finally submitted.



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