

# What We Believe Is Imperative for Education in Latin America

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**Abstract:** The consequences of scientific illiteracy are much more dangerous in our era than in any previous one. Professionals must know their field, but at the same time possess ethical and moral values, whose purpose is to seek the common good, since knowledge implies the capacity for social action. There is a new computer culture without age limits or borders. Therefore, to achieve the desired development; the whole society must be involved. This challenge can be a valuable resource to form critical, reflective, and socially prepared citizens and internationalization must ensure that human solidarity with true respect for the multiculturalism of each country is not lacking. Science does not remain basic indefinitely, eventually, it becomes applied science and evolves into technology, then modulates to industrial practice, and knowledge becomes power. Our universities must promote the acquisition of knowledge and procedures, but at the same time, they must awaken ethical values in young people. Far from training young people for life, they are trained only for productivity and economic profitability. Educating for life requires guiding scenarios to affirm the multiversity of life. Educational agents meet to make themselves known and live the experience of knowing themselves as another, of welcoming the other in otherness. It is imperative that the student not only learn what he receives in the teaching-learning process but also needs to understand and evaluate what he has learned in different contexts and transform the information received into his own knowledge. Current education must implement comprehensive and uplifting perspective at all educational levels. The pedagogical intervention must change education inside their own cultural area, so that the student becomes actors of his own time. This educational process is called the "mesoaxiological perspective of Pedagogy". Our professionals must strive to create, to produce the scientific-technical knowledge that we need, they must know how to handle the epistemological bases that sustain them, and convert the information they handle into knowledge that allows them to be builders of the socioeconomic transformation that our beautiful countries deserve.

**Keywords:** Otherness, Teaching-Learning Process, Comprehensive and Uplifting Perspective, Mesoaxiological Perspective of Pedagogy

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## 1. Introduction

Since the second half of the 20th century, the generation of wealth does not depend only on assets, raw materials, and machinery, but on the ability to create and use the information to innovate and generate new knowledge and new technologies of socioeconomic utility. However, despite the enormous amount of information generated each day, alarming scientific illiteracy prevails [1]. The consequences of scientific illiteracy are far more dangerous in our age than in any previous one [2]. Professionals must have knowledge of their field, but at the same time possess ethical and moral

values, whose purpose is to seek the common good, reasoning and caring, and never to harm anyone, since knowledge involves the capacity for social action [3].

There is a new computer culture without age limits or borders. For this reason, knowledge cannot be limited only to the academic field, in order to achieve the desired development; the entire society must be involved. It is necessary to massify scientific-technical knowledge to change its scope and use [4]. We must move from hand manufacturing to mind manufacturing, to the construction of knowledge as a means of social development. Competitive advantages depend more and more on the use of knowledge

and technological innovations.

The so-called knowledge explosion has turned out to be both quantitative and qualitative, the knowledge practically already they have no frontiers in a globalized world. This presents unprecedented challenges for contemporary higher education and for its possible internationalization. A challenge that can be a valuable resource for training critical, reflective, and socially prepared citizens, however, internationalization must have firm foundations so that, in the current globalization, there is no lack of human solidarity and with a real respect to each country multiculturalism [5].

Nevertheless, in the Knowledge Society, radical changes are taking place in theories considered valid explanations of man and the world, which previously remained unaffected for centuries. Paradigms change very quickly, and despite the accumulated knowledge, it has not been possible to stop the world crisis; there is further deterioration of the planet, of man and his values, and of the relationships between men themselves. Even so, Gaston Bachelard defined the existence of Science as a progress of knowledge, and as one of the irrefutable testimonies of the essentially progressive existence of the thinking being [6].

Hans-Georg Gadamer, a German philosopher, believed that Science was «the greatest factor of productivity in the Economy, without productive development, without scientific discoveries and their ingenious technical applications, the level of civilization cannot be maintained, nor conditions of a dignified life». Gadamer, believed that what must be formed is the man both in his understanding, in his senses, and in his morality [7].

## 2. Some Background

In Ancient Greece, the teaching divided into the Trivium and the Quadrivium. The first one was taught to think and speak eloquently, since it included Grammar, Dialectic, and Rhetoric, while the second Arithmetic, Geometry, Astronomy, and Music were taught, which provided the elements to know and dominate the outside world. It is possible to detect its logic, first general learning was acquired, and the intellectual skills necessary to think, to develop one's own criteria and prepare students for their self-learning [8]. Could it be that the importance that was given to teaching how to learn to think before anything else has been lost in the educational process? In the 21st century, are we transmitting knowledge to improve life and society, or are we simply stuffing young people with information that may not be useful for their development as social beings?

Science does not remain basic indefinitely, sooner, or later, it becomes applied science and evolves into technology. After, technology modulates to industrial practice, and then knowledge converted in power [9]. However, technological development increasingly linked to the understanding of the process of Science as a fact of Culture. The creation of high-quality scientific knowledge is the foundation of social, industrial, economic, cultural and political of the actual Society. As José Ingenieros wrote: «habit organizes the

routine and nothing creates towards the future; only from an imaginative mind awaits the Science its hypotheses, of Art its flight, from Morality its examples, and from History its luminous pages» [10].

Alberto Masferrer, in the last century, considered that: «it was necessary to educate for real life, to perfect Society», making a strong criticism of unproductive academicism. Indeed, he wrote, «if we understand well what it is to educate, and if we want to educate instead of instructing, we will realize that the position of teacher (...) will become the most difficult of all, (...) because we can always make men with a lot of knowledge, but not really educated [11].

For José Martí: «Educate is to deposit in each man all the human work that has preceded him: it is to make each man a summary of the living world, until the day he lives. Educate is to put it at the level of his time, so that he floats above it, and not leave it below of his time, with which he will not be able to come out on top. Educate is to prepare man for life. » [12]. Recently, Physicist Richard Feynman asserted that the goal of teaching should not be to help students memorize and repeat information under academic pressure but to inspire in them the desire to learn and make them capable of thinking, understanding, and questioning.

Aldous Huxley wrote, higher education does not guarantee higher virtue or higher political wisdom [13]. Our universities have to promote the acquisition of knowledge and procedures, but simultaneously they must awaken, in the young, ethical values! Such ethical values allow them to perceive both the profits of Science and Technology in improving quality of life, as negative consequences if those profits lack moral and ethical values.

From the UNESCO third Regional Conference of Higher Education (CRES-18) held in Córdoba, Argentina, from 11 to 14 June 2018 derived the final Declaration as guideline instrument strategies of the sector and the Action Plan 2018-2028 that supports seven thematic axes. The sixth was called “The investigation science and technology, and innovation as an engine of human, social and economic development for Latin America and the Caribbean”. Said Plan emphasizes that the promotion of technological development, responsible scientific research, and the construction of inter-institutional knowledge networks, with trans and interdisciplinary approaches, must guarantee the quality and theoretical-methodological rigor that the Region demands (see Final Declaration and Plan of Action 2018-2028).

## 3. Educational Alternatives

According to Professor Julio César Arboleda, the purposes and practices today are based on the management of knowledge, and the strengthening of cognitive, operational, and attitudinal processes to develop in the world in which we live, “the world of the market”, where profitability is above person and life. Education, then, is subject to the law of supply and demand. Far from training people for life, the people are formed only for productivity and economic profitability [14].

Such teachings tendencies, learnings and formations develop according to molds that, the dominant powers establish for their reproduction. These educational processes do not consider students as beings who build their own understandings, meanings and orientations for their life and for the community life. In this panorama, the function of educating for the formation of self-awareness, critical, generative, and edifying are practically absent from education and pedagogy. It is necessary, therefore, for an education that promotes research. Education has the challenge of embracing reflective inquiry, of developing an ontogenetic and phylogenetic influence, that is, for the formation of one's own personality and of an uplifting consciousness of a common world. An Education whose primary goal is educated with actual knowledge [15].

Educating for life requires a school that offers scenario guidance to affirm the multiversity of life, to recognize and dignify the different territories as interrelated complexes of earth, bodies, spiritualities, and worldviews, and cultures various. Where educational agents meet let others know and live the experience of knowing to be another, to welcome the other in otherness. At this point, education must promote a sentient reason that connects with life, so that they learn and think by experiencing. That is understanding and can making use of these experiences (of knowledge, reflections, attitudes, values, skills, and their applications) so edifying, with a sense of life, in a way sentient, that allows them to know how to be them self a testimony, work of life, honor, care for, nurture the life itself [16].

It is imperative that the student not only learn what they receive in the teaching-learning process but also they need to understand, and evaluate what is apprehended in different contexts and transform the information received into their own knowledge. The current education must implement at all the levels of education an understanding and edifying perspective [14].

For Professor J. M. Touriñán López, to know, teaching and educating do not mean the same thing. The very knowledge of education creates the possibility of building areas of education integrated with the cultural areas; this allows transform information into knowledge and that same knowledge in education [17]. According to the above, the pedagogical function must be exercised with competence to establish a relationship educational where daily activity is turned into a work tool. This type of temporary formative orientation is directed to the human condition, that is, to the type of people you want to train in a space-time determined, it means, the model or educational pattern of that particular society [18]. Such Via of pedagogical intervention could transform education into the knowledge of the cultural area, specific to each country or region. The student thus becomes an actor of his own time. This educational process is called the “mesoaxiological perspective of Pedagogy”. Education, in its full sense, does not achieve its goal if it only develops a man capable of fending by himself and merely for himself [19].

## 4. Conclusion

Critical citizenship is an expression of the intellectual and affective age of the majority, which is committed to education and pedagogy for life. Education for life is needed to intervene in the training of people with a conscience that allows them to evaluate themselves permanently and continuously, that is, examine themselves as being integrated into an interconnected complex multiverse system [20]. Knowledge must generate changes in societies, produce technological innovations and define historical-cultural profiles as claimed by Vitalism from Masferrer. The scientific task is actually a set of knowledge, strategies, and basic skills. Knowing how to do something: producing knowledge!

Our professionals must strive to create, for producing the scientific-technical knowledge that we needed, they must know how to handle the epistemological bases that sustain them, and convert the information they handle into knowledge that allows them to be builders of the socioeconomic transformation that our beautiful countries demand. Our young people must be trained as agent of change, capable of applying all their strength to improve life and perfect the world in which they live! [21].

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