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TRAINING AND FUTURE SKILLS OF NEW PROFESSIONALS FOR SUSTAINABLE ENVIRONMENTS

FORMACIÓN Y COMPETENCIAS FUTURAS DE LOS NUEVOS PROFESIONALES PAR ENTORNOS SOSTENIBLES

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Summary.

Nowadays, it is important to develop skills in the human talent of organizations and so that they can compete as an intelligent and innovative organization. Investing in an organization's human talent should be part of the mission of every entity in a globality of new technologies and artificial intelligence. Communication skills, collaboration, teamwork, creativity, resilience etc. are still important today.

Keywords: future skills, creativity, effective communication, emotional intelligence, collaboration, learning to learn.

Introduction.

Latin America and the Caribbean has been economically affected by an unfavorable international scenario that has been shaped by the effects of the coronavirus health emergency and also by armed conflicts. In 2023, a decade was completed with an average annual growth

of 0.8%, much lower than the 2.0% achieved in previous years. (ECLAC, 2023).

Nowadays it is almost impossible to talk about university education without touching on the issue of employability. In this area, the discussion has been alarming lately due to the impressive advances in the field of Artificial Intelligence in recent years. Although these changes do not augur the rebellion of machines in the near future, they do generate an environment of uncertainty in the face of the possibility of an unprecedented automation process that leaves a significant proportion of the economically active age population unemployed.

Reference framework.

There are multiple policy areas that must be taken into account in a comprehensive productive development agenda. In addition to the traditional policies aimed at facilitating the financing of investments and working capital throughout the life cycle of companies, there are others aimed at identifying and closing gaps in human talent, digital transformation, attracting foreign investment, internationalization, specific infrastructures and other public goods. including quality infrastructure and policy and regulatory agendas. (ECLAC, 2023).

In this set, science, technology and innovation policies play a central role, due to their effect both in increasing the productivity of existing activities, through incremental or radical improvements in processes and forms of organization, and in the creation of new sectors, through technology and innovation, to guarantee the adoption of technologies and knowledge by companies. as well as the impetus that must be given to the development of mature entrepreneurial ecosystems.

Table 1. Sectors and areas driving regional economic growth and sustainable and inclusive productive transformation.

Industry	Services	Big Push for Sustainability
Pharmaceutical and life sciences industry	Export of modern services or services enabled by information and communication technologies.	Energy transition, renewable energies, green hydrogen, lithium.
Medical device industry.	Care Society	Electromobility
Advanced manufacturing	Labor-intensive services	Circular economy
	Digital Government	Bioeconomy: agriculture for food security.
		Sustainable water management.
		Sustainable tourism
Reacomodo geográfico de la producción y de las cadenas de valor a nivel mundial.		

Fuente: (CEPAL, 2023).

In the article The Future of Skills: Employment in 2030; It is a publication that advances the conversation beyond automation and proposes a path forward by identifying the skills, competencies and knowledge that professionals in different fields will need to remain relevant in the not too distant future.

The results of this research on which the article is based expose in general terms its methodology, findings and implications, as well as a series of speculative profiles of professionals of the future. This analysis not only focuses on measuring the impact that automation will have on the skills that will make a person employable by 2030, but also has a broader focus on seven megatrends, technological change being just one of them. The others are: globalization, demographic change, ecological sustainability, urbanization, growing economic disparity, and political uncertainty.

In general, the report's forecast is encouraging; It promotes a vision of a professional in a symbiotic relationship with smart technology. Education for the future will focus on developing the purely human skills and competencies for which, at least for now, machines do not offer a viable alternative, such as empathy, treatment of personnel and group relationships. At the same time, there will be a greater emphasis on dynamic pedagogical strategies; Constant training and retraining will be the norm, and the bachelor's or engineering diploma will cease to be the main evidence of employability as professionals adapt to working in a changing and constantly evolving technological environment.

Currently, there is a technological revolution that has generated a profound reconfiguration in our society and economy. At the heart of this transformation is the rapid progress of Artificial Intelligence (AI), which while it has brought substantial advances in terms of efficiency, is not free of ethical challenges, especially with regard to privacy and the promotion of equality and fairness in its application. The labor landscape is undergoing an accelerated redefinition due to technological evolution. The automation of traditional tasks has created the need for workers to acquire new skills and competencies to maintain their relevance in this constantly changing environment.

"Reskilling" involves the re-education of workers so that they acquire skills for a new job, which contributes to the worker's entire transition. On the other hand, upskilling focuses on strengthening existing skills or training new competencies in order to adapt to the changing demands of the labor market and thus improve their performance. (UNESCO, 2023)

The globalization of production, trade, consumption and culture has profoundly affected the way work is organized in societies, with a very significant impact on the way in which people and their knowledge and skills relate to labor markets and information. At the same time, the movement of people also accelerates risks of the generation and growth of pandemics, and the effects of COVID19 have left consequences in the value chains of the largest players in international trade: the United States, China and the European Union.

Demographic changes are one of the trends with the most relevant direct effects on the future of work. The International Labour Organization's (ILO) Global Commission on the Future of Work estimated that 520 million new jobs need to be created worldwide by 2030 simply to cover population growth and more for people with disabilities and women. These demographic changes occur in several directions and following different patterns. The main subtrends are:

Population aging: Especially in developed countries, 14% of the world's population is expected to be over 65 years old by 2040. The ILO recommends thinking about employability opportunities for older people as a possible way to overcome pressures on interactions between

generations. This opens up new possibilities for us to think about reskilling and lifelong learning strategies.

Migrations In the last 20 years, the percentage of migrant workers grew by 50% worldwide, taking into account that migrants do not always have the necessary skills to insert themselves, putting them at risk of unemployment or underemployment in a foreign country.

The new social contract for education must focus on education as a public cause, a shared social commitment to one of the most important human rights, as well as one of the most valuable responsibilities of states. According to the UNESCO Report (2023), it is the task of education to educate citizens who promote human rights, who are capable of being critical, autonomous, and ethical thinkers and doers. An education that equips people to collaborate with others, developing their subjectivity, responsibility, empathy, critical thinking and creativity, as well as other socio-emotional, cognitive and digital skills.

The International Labour Organization (2021) published in the Global Framework on Central Skills for Life and Work in These Times. The most cited competencies are (top 10 in order of most cited to least cited): - Emotional intelligence - Empathy - Creativity - Critical thinking - Collaboration - Effective communication - Complex problem solving - Digital literacy - Learning to learn - Perseverance or Resilience.

Emotional intelligence: it is the ability of people to identify their own emotions and those of other people. In most publications, the concepts of empathy and emotional intelligence are mentioned almost as interchangeable, encompassed within the “socio-emotional skills” par excellence. However, it is possible to identify that empathy is one of the responses that derive from emotional intelligence with respect to other people. Empathy specifically is an effective response derived from the processes of strategies to work on it in learning environments.

In his publication, Krznaric (2015) defines empathy as manageable and suggests six habits: Cultivate curiosity about other people (especially strangers). Controlling prejudices and finding common ground. Learn about other people’s experiences and achievements. Listen carefully and open ourselves to other people listening to us. Inspire mass action and social change.

Creativity is associated with the ability to generate unusual and original ideas given a particular topic or situation, or to propose creative ways to solve a problem. It involves making use of conscious or unconscious techniques to generate, articulate and apply new ideas or perspectives in response to challenges that the context may present to us.

The development of creativity implies that learners can question reality, exchange ideas and debate them, in addition to being able to generate original ideas. The continuous development of mental processes suggests that creativity matures and develops with training, age, and lifelong experience.

It is important to confirm that it is possible to include activities that stimulate creativity at any time in a class, and especially in the project-based learning environment. The one we like the most is the combination of a slogan that stimulates the generation of ideas (either through brainstorming or as part of the ideation process of Design Thinking).

Critical thinking: It is a cognitive skill that consists of using logic and reasoning to identify the strengths and weaknesses of arguments, or solutions to problems. This implies having the ability to evaluate topics and concepts appropriately and appropriately, analyzing the available information to form an opinion or make

a decision. Other activities for adolescents, young people and adults include the use of decision-making tools such as SWOT or SWOT (Strengths, Weaknesses, Opportunities and Threats) analyses.

Collaboration is a social process of knowledge creation in which people work as an interdependent team to achieve a clear goal, resulting in a product or consensus. Each member takes collective responsibility for the results and demonstrates a willingness to cooperate. It includes the ability to identify and recognize the emotions, experiences, and perspectives of others.

Globalization and the interconnectivity of personal and work relationships imply strategies to work on it in learning environments. The development of collaboration requires a conscious design that promotes that each individual is able to 1) know the joint objectives, 2) know and weigh what each person brings to the group (such as skills, knowledge, resources, experiences, etc.), and 3) negotiate how to interact in the most efficient way to achieve that goal together. In-person and virtual collaboration will continue to be extremely relevant in the coming years. In addition, other complementary skills to collaboration are the ability to plan and organize resources and adaptability. The novelty that we find in the literature analyzed is the appearance, on repeated occasions, of virtual collaboration. In general, it refers to the mediation of software and technology in general to be able to work with others. (UNESCO, 2023)

Project-Based Learning is an ideal exercise for collaborative work, but it needs to be accompanied by educator and peer monitoring of learners' progress in their development. An education by 2050 has to consider that the individual talents and skills of people teaching can be enhanced by collaboration and support among peers and with other specialized people.

Effective communication is a long-recognized skill, but still difficult to define due to its complexity. We are talking, on the one hand, about the ability to receive information: to listen effectively with the aim of extracting meaning. On the other hand, effective communication also refers to generating information: articulating thoughts and ideas effectively, expressing opinions, desires, needs, and fears using oral, written, and nonverbal resources in different contexts and for a variety of purposes. Generating spaces for debate and presentation, mixing elements of role-playing, and the participation of learners in conversations with different interlocutors are some of the most successful strategies to work on it in formal and non-formal learning spaces.

Complex problem solving: it is the ability of a person to get involved in the cognitive process that allows him to understand and solve situations in which a solution or method to be applied is not immediately obvious, has become one of the competencies included in the PISA assessment (Program for International Student Assessment). Teachers and students need to form a community of knowledge professionals and builders of solutions that transcend the boundaries of disciplines. Pedagogies with a focus on problems and projects can promote that learners can connect knowledge to their own experience and see the world as transformable. Csapó & Funke (2017) confirm that technology, educational games, simulations, and real-world projects are all opportunities to promote this competence.

Digital literacy: Technology is everywhere today, we use it to communicate, to generate ideas, to share processes, to create, to monitor and be more efficient. All these tools and devices generate a new demand for skills not only for the new generations, but also for adults. Digital literacy is that set of basic skills necessary to be able to interact efficiently with the most everyday technologies. Being digital literate

implies knowing and knowing how to use digital devices and tools, as well as allowing you to think critically about the digital environment and use it in a critical, reflective, and participatory way (Morduchowicz, 2021).

Among other aspects, it involves the analysis of which tool is put into practice (fundamental skills). For example: "when teaching to share texts or images through social networks, it requires learning to communicate in the digital environment, not only effectively but, above all, empathetic, thinking about others, without hurting sensitivities and in a plural environment and valuing diversity. Basic use of hardware: is the ability to operate a personal computer, tablet, mobile phone, or other personal device using physical functionalities such as keyboard, mouse, navigation buttons, or touch screens, as appropriate." (Morduchowicz, 2021, p.8).

Learning to Learn has become increasingly cited in reports on the future of work and education. This competence, essential for the development of routines and self-regulation that allows lifelong learning, has been defined as the process or set of strategies that allows us to have awareness and control over our habits of perception of information, our curiosity, our learning and the growth of our knowledge. (Mujis & Bokhove, 2020).

The development of the ability to Learn to Learn is, in the first place, associated with the role of the person who educates. Educators and trainers become guides who offer support to students in planning, monitoring and evaluating their own learning. That is why it is necessary for people in the educator role to be explicit when teaching metacognitive strategies, inviting and stimulating in learners experimentation and evaluation of the results that those who learn achieve, so that they are able to apply the strategies that are most successful for them. (Morduchowicz, 2021).

The American Psychological Association (2017) defines **resilience** as "the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress." Being resilient means "bouncing back" from difficult experiences such as challenging family and relationship situations, health issues, or financial and work stressors.

The increase in ambiguity and complexity, added to the existence of events that can dramatically alter daily life such as what happened with the COVID-19 pandemic crisis or the phenomena associated with climate change, make people and communities have higher levels of resilience to deal with and develop even with such situations. Another element to consider is the management of stressful situations in traditional learning environments (with exam milestones) as well as in learning in the work environment.

It is important to develop competencies that increase resilience in learning environments (Seligman, Randal, & Lincoln, 2009). The strategies in general are very simple but require continuous practice to turn them into shared habits among those who learn. Another basic element is to focus attention on positive emotions and memories, as well as to promote gratitude and social bonds.

The need for pedagogies to be able to reflect interdisciplinarity, as well as the interdependence between causes and consequences between the various challenges, becomes a priority of these educations of the future. Some proposals include Service Learning and involving students of all ages in community projects. These examples of pedagogies minimize the distances between formal educational spaces and "the outside world", connecting learners with different realities and experiences that broaden their horizons of opportunities for action and put into practice several of the most mentioned competencies of the future of work.

For this reason, situations such as globalization must be analyzed and taken into account, where education for global citizenship needs to be aligned with this reality, with the positive and negative consequences of this globality and with the notion of a single planet that contains us all. Inclusion and participation become even more relevant in adult education, both in formal settings and by appreciating non-formal education spaces as valuable experiences of acquiring knowledge and skills.

Conclusions.

In conclusion, with the arguments presented, everything must be in favor of actions for climate change and new technologies and that is where education must think about the futures of green economies and carbon neutrality, Thus, from fundamental training to vocational training and skilling-reskilling, programs must include “green skills” that are not yet widely used in the lists generated by the literature. but that organizations such as the International Labor Organization (ILO) have already been able to include as crucial. Minimizing the process of transition to a more sustainable society and economy implies that people can feel and know themselves valuable by occupying the jobs that arise.

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