



REVISTA

CÁTEDRA

EDITORIAL

Cátedra Magazine is pleased to present volume three, number two in the electronic version. The subject matter developed has its theoretical bases in the Educational Sciences in their different specialties and educational levels; this is how some relevant aspects are presented, such as Education-Public Policy, Initial Education, Education-Informatics, Education-Mathematics and Education-Research

The contents presented in this new issue are characterised by the fact that they have been prepared under parameters typical of research methodology. Moreover, they are built with academic rigor and based on teaching practice.

The issue consists of eight approved articles:

The first article, entitled *Inclusion and territoriality in the general levelling for the exam Ser Bachiller en el Ecuador*, by Oswaldo Haro-Jácome, Héctor Simbaña-Cabrera and Juan Aguilar-Paoquiza. The manuscript describes the inclusion: by gender, ethnicity, disability; and by provincial, cantonal and institutional territory of high school students participating in the General Leveling Course, second process of 2019, executed by the Ministry of Higher Education, Science, Technology and Innovation (SENESCYT), in agreement with the Public Company UCE. The treaty specifies the rights of young people who are trained to take the Ser Bachiller exam prior to entering university. It was found that high school dropouts and those who fail slightly outperform those promoted. In terms of gender inclusion, the promotion of women is much higher than that of men; by ethnicity, mestizos far outperform participation and approval. No cases of disabled high school graduates were reported during the course. In terms of territory, high school graduates from the coastal region outnumber those from other provinces and cantons, while, in terms of institutions, public educational establishments, run by the State, have greater participation.

The second article, entitled *The labor perception of the graduates of the intercultural university model in Mexico, the case of the UNICH and the UIEM*, by Zuzana Erdšová and Rafael Juárez-Toledo. The manuscript analyzes the dilemma between the interculturalist discourse reflected in the entry and exit profiles that support this type of higher education, and the prevailing situation for its graduates as they seek to enter the labor market. The initial question referred to in order to locate the problem is: what happens once the intercultural university education is concluded? Although the perception of intercultural education is positive for its authorities and graduates, a profound incomprehension or ignorance of the intercultural proposal and of the role that intercultural graduates must play in society, specifically in the labor market, has been identified. Graduates must face problems related to discrimination, low salary levels and the lack of efficient opportunities for personal development. Through a qualitative process, applied in the different actors, the perception of the performance of intercultural graduates has been obtained for two geographical and socio-cultural contexts: The Intercultural University of the State of Mexico and the Intercultural University of Chiapas.

The third article entitled *Construction of child sexuality in the family environment*, by Martha Quirola-Larrea and Cecilia Jaramillo-Jaramillo. The objective of the manuscript was to verify if through a formative process the ways in which parents seek formation and information



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about sexuality for their children change. A programme on child sexuality was implemented with legal representatives from a Comprehensive Early Childhood Development Centre in the city of Quito. This research was quasi-experimental. Entry and exit surveys were applied to the direct and indirect actors of the programme, divided into experimental and control groups. The final conclusion is that the programme had a significant impact on changing the perspective of parents. It includes the practices of various sex education possibilities with their children. Similarly, there is the possibility of educating parents in the school and community environments to improve the quality of life and family management.

The fourth article entitled *Registration of academic titles through an application based on Blockchain and Smart Contracts*, by Luis Rosero-Correa, Mario Morales-Morales and Santiago Morales-Cardoso. The manuscript analyzes the proposal of feasibility of an application based on Blockchain technology and Smart Contracts to reproduce the process of assigning academic titles to students without the need of a central entity, third parties and bureaucratic processes while taking advantage of the characteristics of these technologies such as transparency, security and immutability. Thus, two complementary intelligent contracts were developed, taking advantage of the characteristics that currently exist to create structures that represent real-life objects and functions that manage these structures as parameters. These contracts were executed in a virtualized environment in which a chain of Ethereum blocks was simulated with the Truffle toolkit. The smart contracts were evaluated by entering test data and with these records stored in the block chain the process of assigning academic degrees to students through a function within the main smart contract was executed. To validate that the process ran correctly, the block chain was queried and it was verified that the title assignment records were generated and stored in the block chain successfully. In this way it was possible to conclude that the proposed model based on blockchain technology and intelligent contracts is feasible.

The fifth article entitled *Analysis of the implementation of the educational services portal: EducarEcuador*, by Santiago Vinueza-Vinueza, Joshua Pozo-Caicedo, Anthony Pacheco-Gallegos and Richard Arequipa-Caisaluisa. The manuscript presents the analysis of the implementation of the EducarEcuador educational platform in the national education system, as well as the importance of the use of virtual platforms at present. The research sought to evaluate the rate of incorporation of the virtual platform in the country's educational institutions. Among the results, it is perceived that the implementation and management of the platform's tools has been more successful in the fiscal jurisdiction. The lack of technological infrastructure in the country is perceived. Consequently, this absence limits the management of the educational platform. However, it does not limit only the users but also strongly limits the implementation of the platform.

The sixth article entitled *Didactic innovation for the understanding of the concept of vacuum in hydrostatics*, by Franklin Molina-Jiménez and Lucia Goyes-Chulde. The manuscript describes a proposal of didactic innovation aimed at improving the understanding of the concept of vacuum, which is studied in the hydrostatic branch of physics and constitutes one of the most complex and important topics to understand, since it is involved in many activities that the human being develops, from the fundamental process of breathing, to that of generating numerous scientific and industrial advances. The research was developed under a quantitative, quasi-experimental, inductive process in which thirty-three students of the Pedagogy of Experimental Sciences, Mathematics and Physics Career participated. They worked in two moments, in which it was established that the average percentage of understanding of the subject analyzed in the pre-test and post-test increased from 44.70% to 79.55%. This allowed to intuit that the use of the didactic innovation proposal, based on the application of the didactic technique questions answers and of the strategy of laboratory



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investigation led to improve the understanding of the concept of vacuum, besides verifying how this influences the daily work.

The seventh article entitled *Perspectives on Scientific Production in Ecuadorian Universities*, by Jorge Balladares-Burgos, Ángela García-Naranjo and Cristina Granda-Villamar. The manuscript arises from the need to know the situation of scientific production in national and international indexes of Ecuadorian universities from 2003 to 2017. These indexes reveal the disadvantage of universities at the national and international level. Ecuadorian Higher Education Institutions (HEI) are in lower positions at the Ibero-American (IBE) and Latin American and Caribbean (LAC) levels than the number of publications they have produced. Likewise, determine the influence of the 2008 Higher Education reform on the scientific production of HEI. The methodology used in this research is of an inductive-deductive nature, supported by bibliographical review and hermeneutics. It is concluded that in the period 2003-2013 the San Francisco de Quito University published more scientific content at the national level while in 2013-2017 it was the University of the Armed Forces. Also, it is evident that the universities increased their research production at the IBE, LAC and national levels. With these data, we seek to show the effects of the implementation of public policies that regulate scientific production in HEIs.

The eighth article entitled *Analysis of Ecuador's scientific production through the Web of Science platform*, by Elking Araujo-Bilmonte, Liceth Huertas-Tulcanaza and Kenny Párraga-Stead. The manuscript was born from the disadvantage found in Ecuador's scientific production with respect to other Latin American countries. The objective of this research is to reflect on the importance of scientific production for the social, educational and scientific development of the country. The methodology used in this research is inductive-deductive and is supported by bibliographical research using the hermeneutic method. The results obtained in scientific production of the Web of Science platform for the periods 2006 - 2008 and 2015 - 2020 in Latin America are presented. These periods are taken as a reference to contrast the records of scientific production prior to the university reform in Ecuador in 2008 with the current ones. Among the results, an increase in Ecuador's scientific production in the last period is determined. Ecuador is in position 7 of the 20 countries analyzed. It is concluded that Ecuador shows a growth in scientific production as the other countries. However, there is still a significant difference with respect to: Brazil, Mexico, Argentina, Chile and Colombia.

Cátedra Magazine thanks all the authors and reviewers of the articles that have made the publication of this issue possible. It extends an invitation to the national and international academic community to present their research work related to the Educational Sciences in their different specialities and educational levels.

Directors/Chief Editors



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