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Developing a Proposal for Establishing an Observatory on Professional Training in Information Sciences for Latin America and the Caribbean

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ABSTRACT

Objective: to propose the conceptual and functional structure of the observatory on professional training in information sciences for Latin America and the Caribbean, as an instrument for information management that can provide useful data to support schools and Library Science and Archival programs. and Information Science.

Methods: a review and comparison of conceptual foundations, characteristics and functions of the observatories was carried out, conceived as tools for management and research on formative aspects of the field, which also allow for surveillance, monitoring and process monitoring activities. actors and products on various topics of interest and dimensions of academic, social, cultural and technological development. Likewise, the objectives, structure and typology of the information that is managed from this type of instruments were compared, supported by technology and analytical processes to project scenarios.

Results: the main results of the review and comparison of concepts and characteristics reveal that the observatory is defined as an instrument that allows

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supporting strategic decisions in any area of scientific and technological work, by offering significant and relevant information, duly organized and systematized. It is proposed that the observatory on professional training in Information Sciences be structured based on four components of observation: the curriculum, teacher training, research-development, extension, university social responsibility and continuing education.

Conclusion: the high potential that the observatory on professional training in Information Sciences for Latin America and the Caribbean would have is highlighted, as a basis for academic cooperation processes and the formation of knowledge networks in the area.

Keywords : scientific observatories; vocational training; Information Sciences.

INTRODUCTION

Faced with the dynamism of information and knowledge societies and the increasingly complex and growing needs of higher education, the structuring and design of mechanisms is required that guarantee the monitoring and provision of information to support the strategic decision-making. decisions that result in the formulation and implementation of policies to promote academic, scientific and technological development.

Based on these premises, we present a proposal for the conceptual and functional structure of an observatory on professional training in Information Sciences for Latin America and the Caribbean, which is derived from a documentary investigation, from which definitions of the observatories were compared, taking into account visions of various authors. Likewise, specific experiences of eighteen

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observatories were reviewed and compared, which focus on the systematic study of problems and phenomena related to higher education: their processes, actors and priorities, within which the training approaches stand out, aligned with the needs of labor markets, as well as educational innovations and university teaching models, supported by productive and creative models. The structures and components of observatories related to the area of Information Sciences and related fields, such as: telecommunications, the information society and heritage education, were reviewed and compared.

Some of the bases proposed to structure the observatory on professional training in information sciences point to the characteristics of this field of knowledge, such as the collection, management, monitoring and organization of data, information and relevant content to account for the trends that are being handled in the training of this type of professionals. The main conclusion points out the high potential of observatories as mechanisms for academic cooperation and exchange, and with this being in tune with the current indicators of positioning and development of higher education, in the context of information and knowledge societies. .

The objective of this article is to propose the conceptual and functional structure of the observatory on professional training in information sciences for Latin America and the Caribbean, as an instrument for information management that can provide useful data to support schools and programs. of Library Science, Archival Science and Information Science.

THEORETICAL FRAMEWORK

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Before presenting the proposal that will support the structuring of an observatory on professional training in information sciences for Latin America and the Caribbean, it is necessary to review and compare definitions, conceptions and approaches that have been made in the field of Latin American higher education. related to observatories as mechanisms and instruments to manage the knowledge that is produced in specific scientific, academic and professional fields and on this basis identify elements from which the bases for the observatory proposal that is intended to be formulated are defined.

The first thing that should be highlighted is that observation is an essential cognitive process and is part of an entire research method, which is widely accepted in academic settings, due to the potential it has to systematically and rigorously address realities. , objects and study actors. Observing reality following inquiry techniques and procedures refers to the deployment of a set of organized and deliberate actions whose purpose is to obtain a representation of realities, objects and actors, whose identification of constitutive elements occurs in two stages: one concrete and the other abstract. In the first, an approximation of the characteristics that make up what is observed is made and in the second, the situations, variables, categories, indicators and properties are reconstructed to deepen the knowledge of reality.

In this sense, there are the approaches of *E. González*, [1] according to which observatories have taken off in recent years as a response to the growth and diversification of higher education systems in Latin America and the incorporation of new trends, marked by the intensive use of technologies and the increasingly growing need to generate data and information that contribute to the understanding

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of the problems that concern educational processes and the development of science, aspects that must be observed to obtain information that supports the process. decision-making and formulation of educational policies aligned with social development. According to the aforementioned author, the observatories are also justified by the importance of monitoring and recording information, related to good practices, related to the small and large educational reforms that are arising in the global and complex contexts, configured from the installation of the dynamism imposed by information and knowledge societies.

This dynamism translates into frequent conflicts that arise between university institutions and different social expressions, particularly with representatives of the State, and more specifically with the executive branch, all of which makes it necessary to create observatories that can monitor these situations. . Under these conditions, it is necessary to make updated information on these topics visible to those who have institutional decision-making in their hands, to analysts and academics, interested in studying the direction and progress of academic institutions in each country.

C. Carreño and *M. Buitrago,* [2] following these same ideas, point out that observing from the university implies movements in two directions. The University creates a movement to generate new knowledge from questions that guide the observation processes, so that the actors that make up its community turn their gaze on certain situations that they are interested in knowing in detail. Once this moment to observe has been built, another moment is needed, supported by administrative and political consensus so that the conditions and commitments of observation are

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created. This element is of singular importance for the institutional support of the activities that can be deployed from the observatories.

Among the essential characteristics that an observatory must possess to consolidate itself as an information management instrument, we have to establish itself as a digital documentation center. This alludes to the fact that every observatory must store, classify and disseminate information and documentation on a specific topic. Likewise, and following the approaches of *LT Sanabria* and *L.* A. *Méndez,* [3] the observatory must also be a center for data analysis, which is considered as a tool that allows decision making and support for research processes. For these same authors, observatories are also spaces for information, exchange and collaboration, which manages the current vision of observatories, in terms of seeking the collection, analysis and dissemination of information to understand a specific topic, and promote reflection and exchange of ideas and knowledge through scientific networks.

Méndez and *others,* [4] after reviewing and analyzing the structure of eighteen observatories, related to the topic of social innovation, as a preliminary step to propose the creation and systematization of an observatory on the topic at the Minuto de Dios University, in Colombia, point out that the characteristics that can also be considered as criteria for structuring observatories are the following:

1. Be instruments through which relevant information is collected, processed and disseminated on a priority topic for science, technology or research processes on a specific problem or topic.

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2. Become a management tool, from which relationships are established with related actors. In other words, projects and opportunities are managed for the area in which the systematic observation will be carried out.

3. Provide a meeting space between relevant actors, who act as a consultative and advisory body for decision-making, which monitors the evolution of the actors and processes related to the topic or problem under observation.

More recently, *Y. Moyares* and *M. Infante* [5] analyzed nine concepts of observatories, including definitions indicated by authors from various countries, such as Colombia, Cuba, Peru, Spain and Mexico. Based on the concepts analyzed, the authors propose that there are divergences between the concepts reviewed and compared. The definitions move between considering them as a tool to carry out technological surveillance actions (I. *De la Vega* [6]); physical or virtual place (*O. Lazo Gonzales* [7]); multidimensional space (*N. Martial Angle* [8]); information system (*A. Moreno* and others [9]) and work units (*J. Téllez and M. Rodríguez* [10]). Where the concepts do coincide is in understanding them as platforms for processes such as: management; The capture; the analysis, processing and dissemination of information, both internal and external, that is of interest to the institution or society.

On the other hand, it was also noted in the revised concepts that these processes are carried out systematically, where a set of variables are monitored and instruments and methodologies are used. *Bouza Betancourt* [11] states that these platforms have the purpose of transforming information into knowledge so that end users use that information to make decisions. The various authors agree with the purpose of these observatories, which is to support decision making.

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Seabras and other authors [12] point out that observatories can be conceived from documentation and information centers to more dynamic tools, based on collaboration, with the aim of also promoting communication and reflection on a particular phenomenon. In this sense, observatories can also be defined as information spaces to support research and decisions. *E. Zárate* [13] is located in this conceptual perspective on observatories, by ratifying their purposes that aim to generate the necessary inputs for making accurate and informed decisions. In this way, the author continues to point out, these centers become a meeting place between people who share their interest in a certain topic; They are frequently formed as a limited and specialized version of virtual communities and forums. Observatories then are not only information spaces for making decisions, but they can also become scenarios for collaboration between peers.

Costa and [14] others propose that observatories should be structured to accompany and provide responses to the challenges posed by public policies. In the case of the IFRO observatory of the Federal Institute of Education in Science and Technology, it was necessary to think of an instrument to investigate, monitor and collect information on the relationship between the world of work and training offers. *This idea of an observatory is also present in D. Ramos* 's proposal , [15] according to which these instruments, which are supported by technological tools, have two fundamental purposes: to investigate and to inform.

In Abstract, we can point out that the observatories are aligned with the trends projected by UNESCO, [16] for higher education systems, which must operate articulated to innovation strategies, permanent research and the formation of academic cooperation networks, and to achieve this, They revolve around topics of

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special interest to the various fields of knowledge. In the area of information sciences, having the possibilities that arise from observatories constitutes a vitally important element to promote the construction of spaces with organized and available data and content that contribute to the development of research in the area, especially what refers to training processes.

METHODS

The methodology followed to define the criteria and the conceptual and structural aspects of an observatory on professional training in Information Sciences in Latin America and the Caribbean was based on a qualitative approach, following the method of documentary research, oriented towards two axes: one related to the review, comparison and analysis of the concepts, approaches and principles that allow observatories to be viewed as information management instruments, and another as a means for international cooperation and the promotion of academic networks that also allow consolidating spaces for reflection and innovation in the area of professional training in Information Sciences.

Eighteen observatories available on the web, related to the aforementioned topics, were also compared. The themes, their scope and the semantic relationship were validated with the use of specialized thesauri in the area of Education. Specifically, the European Thesaurus of Education, [17] the UNESCO Thesaurus [18] and the Thesaurus of Higher Education, [19] also available on the Internet, were used. It is worth mentioning that thesauri are very useful instruments of representation and terminological control in the processes of analysis and retrieval of information.

The use of thesauri allowed us to visualize the scope and semantic and associative relationships of the term: vocational training, by virtue of which it was evident that

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said term has a semantic relationship with the descriptors: teaching and training, learning contract, teaching methods, teaching technique, learning, skill development and educational levels. In the UNESCO thesaurus, the following is established as a scope note for the vocational training descriptor: Development of skills, knowledge and attitudes necessary in a job to perform a particular task or a set of related tasks, in any position. economic activity. So proposing an observatory on the topic of vocational training would imply covering these topics and subtopics.

From the previous definition, referring to the scope of the descriptor "vocational training", we can affirm that the thematic coverage "coverage areas of the observatory" cover all the dimensions, processes and products related to vocational training, namely: the curriculum, the institutions, the processes and techniques of teaching, evaluation and the lines of research and development that support training.

With these terminological and conceptual criteria, search equations were designed to organize the investigation in specialized databases and in academic Google, with the purpose of tracing trends in terms of the main topics, associated services, available information and processes that are supported. with observatories linked to professional training. From the integration between the conceptual analysis and the comparison of the observatories, elements were derived to define conceptual and functional elements that can be reversed in the proposal of the observatory that is intended to be structured, on professional training in Information Sciences for the field of Ibero-America and the Caribbean.

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The instrument used to collect and analyze the information consisted of a comparative table in which the names of the observatories were indicated, and in which their link and main objective were indicated. The comparison also made it possible to identify the elements, components and services that can be associated with observatories that address and analyze topics such as: professional training, higher education, educational innovation, academic offers and research needs, undergraduate training and continuing and postgraduate education. The comparison also allowed us to project processes, products and relevant information that can be associated with the proposal for an observatory on professional training in the field of Information Sciences, which will allow us to reconstruct and carry out surveillance activities on the substantive processes of these academic programs in the area of Information Sciences in Latin America and the Caribbean.

The conceptual analysis of the existing definitions of observatories allows them to be recognized as instruments for information management, which, in addition, facilitate permanent monitoring and follow-up of topics and problems of interest to the different areas of knowledge. In the case of vocational training topics, observatories are of utmost importance to visualize the current state, trends and the degree of response of the training processes aligned with the needs of the environment.

In addition to the comparison of definitions, it was determined that there is a significant number of observatories, available on the web, on the descriptors: vocational training, labor market (the latter closely related to training), and higher education and educational innovation.

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The incorporation in the analysis of observatories related to higher education topics and educational innovations was justified because when talking about training, not only is the process being assumed, but also its impact on labor markets and the mediations that They give rise to professional training: their curricular and institutional architectures and their implementation mechanisms from didactic strategies.

Most of the observatories reviewed and compared are structured on the basis of academic and curricular management indicators, and information elements that contribute to the approach, analysis, evaluation and management of the study plans are also incorporated. In this sense, vocational training observatories emphasize the relationships between training offers and the needs of the labor markets, also including the demands for jobs.

On the other hand, observatories related to the topics of higher education, internationalization, university teaching and educational innovation, focus mainly on gathering and managing information that supports research processes in such areas and also as support for strategic decisions or formulation processes. of educational policies and curricular proposals aligned with the needs of the labor markets, trends in the use and appropriation of information and communication technologies in higher education and priorities in science and technology research. This group of comparative observatories also focuses on the recognition and analysis of good practices, such as those shown in Table 1 .

RESULTS AND DISCUSSION

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The proposal that we present in the lines that follow constitutes an exercise in integrating the axes of conceptual and documentary analysis carried out. Firstly, the theoretical elements are taken up, derived from the various perspectives and notional scopes of the observatories. Secondly, the documentary axis, made up of the comparison of the different observatories available on the web on higher education topics as it is the field of professional training, as well as other observatories related to information sciences and some of the related areas: information society, telecommunications, heritage education, library knowledge, among others.

The following elements are derived from the first axis of the conceptual approach:

1. The observatory must focus on a specific sector, area or topic, which is sensitive and which is at the forefront of scientific, academic or technological discussion.
2. It must have a specific purpose.
3. It must be supported by the use of new technologies, combined with the use of information analysis, business intelligence and data mining methods and techniques. The databases that must make up the observatory must contain reliable, systematic and objective data and information, which according to its design can serve to monitor, evaluate, characterize, compare, reference and certify structures, populations, attributes, variables, processes in a logical manner. , rational, systematic and objective, in order to obtain desirable results that allow formulating policies, defining objectives, allocating resources and adopting corrective measures when appropriate. Information collection system, which must have, at least, time, content and form.

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4. The observatory must be supported by an efficient and secure process for storing and organizing information.

5. The work team that promotes the observatory must have skills not only for the collection and systematization of information, but also for the analysis of platforms and tools.

6. It must be based on a specific research method that encompasses the implementation of various techniques and procedures, also supported by parameterized information collection instruments, according to the information system.

7. Regarding the thematic structure and services and products of the selected and compared observatories, it is necessary to:

7.1. Of the eighteen observatories included in the study, thirteen address topics related to higher education, in particular aspects related to: professional training, internalization, educational innovation, educational policies and technologies applied to university teaching. It is worth mentioning that the vocational training observatories are rather digital spaces with information of interest about the job placement process, the qualification of professional skills. The Observatory proposal that aspires to raise about professional training in the area of information sciences, aims to cover the components that are considered strategic when it comes to promoting activities of systematic observation and research on the dynamics of training, which It includes the curriculum, its design and evaluation processes, as well as comprehensive academic management.

7.2. The thirteen observatories considered on the topic of training in the context of

higher education have a conceptual and functional structure, through which the purpose of relying on technological tools is achieved, but none incorporates business intelligence applications or business analytics. data that allows generating products such as, for example, trends and maps of the observed reality. Only the Monterrey Educational Innovation Observatory presents trends in applications of digital technologies as the basis of education of the present and the future.

7.3. No specific observatories were found on the topic of professional training in the area of information sciences; However, observatories related to other related topics in the information field were reviewed and analyzed; This is the case of: the information society, library knowledge, telecommunications, cultural heritage, among others.

7.4. Regarding the analysis of observatories collaterally related to the field of information sciences, proposals were observed that allow a greater range of observation and also products and services much more in line with the nature and scope of the functionality that must be offer an instrument that offers information from this type of digital spaces. In this sense, specific data is shown, such as the directives and leaders of the observatory, which address the Technology, Education, Health and Urban Planning sectors. It presents reports and studies, indicators, information and resources, alerts, digital agenda, offers the ONTSI.data tool to prepare reports with the SI indicators, incorporates the Documentation Center of the National Observatory of Telecommunications and the Information Society (CDO), has advanced search, login, social networks, of interest, the

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inclusion of several languages, shopping carts for books from the digital library of the documentation center. Likewise, mappings referring to cultural training, cultural observatories, networks and organizations and research groups are presented. It presents repository environments, virtual learning and research environments, and one for collaborative work. Regarding research, it presents production and projects. Shows an agenda of activities, news and events, discussion forums. The observatory on library knowledge provides information from a repository, and access to scientific journals in the field.

8. After the comparison of the observatories, both in the field of higher education and in the related fields of information sciences, a conceptual and functional structure is proposed for an instrument of this type, related to professional training in the field. The proposal is organized on the basis of observation components. The first component is the curriculum with its associated elements; the second is teacher training, didactic innovations and mechanisms for evaluating academic performance; the third is research and development in Schools and Programs; and the fourth component is extension, which includes: professional practices, university social responsibility projects and continuing education offers.

Table 2 shows the elements of observation component No. 1 (Curriculum). Such elements are: historical-curricular data from schools and programs, curricular management data and empirical data from the evaluations carried out on the curricular designs and management as a whole.

Table 3 presents the proposed thematic disaggregation of the second observation component: teacher training, didactic innovations and evaluation of academic performance. This component is perhaps one of the most strategic and core of the

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observatory, since it constitutes the observation of the teaching work in information sciences and its degree of adaptation to global educational trends, and how these substantially impact professional training. If the aim is to graduate highly competent professionals, teachers must be aligned with the curricular model, the training needs expressed in the environment and in the emerging teaching practices, within which the meaningful use of information and technology technologies stands out. communication, and versatility in the use of innovative and creative learning techniques and methodologies.

In Table 4, we show the systematization of the subtopics and observation indicators related to research and development from schools and programs in information sciences. In this sense, it is important to record and monitor how research processes, the participation and visibility of teachers and researchers in lines, groups and networks, as well as innovation, development and transfer projects, are addressed.

Table 5 summarizes the extension component, university social responsibility and continuing education, important areas in the permanent search for social relevance and the connection of the professional training received in the undergraduate degree with the expectations of training, updating and continuous improvement.

With these four observation components, the structuring of an Observatory on professional training in the area of information sciences is proposed, the horizon of meaning that we seek in having a robust information tool that allows carrying out research activities, formulation of plans and policies for the training of this type of professional, and make decisions that result in the scaling of Information Sciences schools and programs in the Latin American and Caribbean Region.

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CONCLUSIONS

Observatories have been booming in recent years, in response to the growth and diversification of higher education systems in Latin America and the incorporation of new trends, among which is the openness to forms of academic cooperation, based on the use intensive use of information and communication technologies. In this sense, the observatory stands as an instrument for the management of information to support strategic decisions. In its structuring, a multidisciplinary team is required that generates the necessary synergies, aimed at collecting, managing, organizing and making visible information and knowledge essential for the development of the fields of knowledge.

In the case of the proposed observatory on professional training in information sciences for Latin America and the Caribbean, it is considered that the thematic area that it will address constitutes a strategic area for the development of this field and for the development of science and technology in general, since currently this area has been configured as a space with high potential that allows for the understanding of the impact of information and knowledge as elements on which value is added to all types of organizations.

The observatory on professional training in information sciences will make it possible to guide research and implementation of innovative and creative proposals regarding the preparation of human talent that is required in Latin America and the Caribbean to promote processes of sociocultural and technological development, and thereby reduce the existing gaps in terms of access to information and the

expansion of the possibilities of appropriating knowledge and its use in solving priority problems.

Authors' contribution

Johann Pirela Morillo wrote the first versions of the article, as well as designed the methodology and organized the structure of the document; *Yamely Almarza Franco* carried out the conceptual analysis of the information collected for the document, adjusted the text to the magazine's standards and expanded the initial bibliography; *Nelson Javier Pulido Daza* supported the process of analyzing the results and designed the final proposal.

Conflict of interests

The autors declare that does not exist an interest conflict.

REFERENCES

1. González E. Some observatories on Higher Education in Latin America. Lima: UNESCO; 2009 cited 1st. April 2018]. Available at: http://www.iesalc.unesco.org.ve/dmdocuments/agenda/OBSERVATORIOS__Ernesto_Gonz%C3%A1lez_texto.pdf

2. Carreño C, Buitrago M. Itineraries to learn: reflections on university experiences of childhood and youth observatories. Rev Univers La Salle; 2014 cited December 13, 2016];(64):13-23. Available at: https://revistas.lasalle.edu.co/index.php/ls/article/view/3225/2569

3. Sanabria LT and Méndez LA. Common causes. Urban observatory. University social responsibility model. Rev Univ La Salle; 2014 cited March 17,

2018];(64):53-80. Available at: https://revistas.lasalle.edu.co/index.php/ls/article/view/3227/2571

4. Méndez OEL, Riaño OP, López PA. Concept, model and methodology of the Social Innovation Observatory. Bogotá: Minuto de Dios University Corporation; 2015.

5. Moyares Y, Infante M. Characterization of observatories as platforms for the management of Technological Surveillance in the Higher Education sector. Enl@ce Rev Venez Inform, Tecnol Conoc; 2016 cited 2017 Nov 12];13(1):11-27. Available at: http://www.produccioncientifica.luz. edu.ve/index.php/enlace/article/view/21101

6. De la Vega I. Typology of Science and Technology Observatories. The cases of Latin America and Europe. Rev Esp Document Cient; 2007 cited 2017 Aug 15];30(4):545-52. Available at: http://redc.revistas.csic.es/index.php/redc/article/viewFile/404/416

7. Lazo Gonzales O. Theoretical-methodological proposal for public health policy observatories. Peru: USAID; 2008 cited November 15, 2017]. Available at: http://pdf.usaid.gov/pdf_docs/pnadw030.pdf

8. Angulo N. What are observatories and what are their functions? Rev Innov Educ. 2009 cited August 19, 2017];9(47):5-17. Available at: http://www.redalyc.org/articulo.oa?id=179414895002

9. Moreno A, Echavarría M, Londoño M. Observatories and international cooperation networks. Rev Neg Internac. 2009 cited 2017-07-13];2(1):52-

66. Available at: http://publicaciones.eafit.edu.co/index.php/rni/article/download/306/309/

10. Téllez J, Rodríguez M. Entrepreneurship Observatory: a position from the Faculty of Administrative and Accounting Sciences of the University of La Salle. Rev Univers La Salle. 2014 cited December 2, 2017];(64):111-30. Available at: https://revistas.lasalle.edu.co/index.php/ls/article/view/3229

11. Bouza Betancourt O. Development of the information field from the perspective of the systematization of scientific and technological surveillance (VCT) in business organizations. Spain: University of Granada; 2010.

12. Seabra F, Pedras S, Silva P, Carlos A. Observatórios de educação em Portugal: definições e contributos para o desenvolvimento da qualidade. Rev Study Curriculum. 2017 cited 2018 Jul 6];1(8):69-86. Available at: https://repositorioaberto.uab.pt/bitstream/10400.2/6616/1/30-102-2-PB.pdf

13. Zárate E. The Observatories and the University Coordination of Observatories. Rev Electr Coordin Univers Observat Univers Veracr (UVserva). 2017 cited July 6, 2018];(3). Available at: http://revistas.uv.mx/index.php/Uvserva/article/view/2577/4565

14. Costa R, Fontenele J, Sousa L, Fernandes G. Regional diagnosis as support for decision-making on training itineraries: methodological experiences of the IFRO observatory. Rev Presença Geographica. 2017 cited July 6, 2018];(2). Available at: http://www.periodicos.unir.br/index.php/RPGeo/article/view/2679/2173

15. Ramos D. Higher education observatories in Latin America and the Caribbean and their institutional management challenges. Rev Educ Sup Soc. 2018 cited July

GARDEN JOURNALS
Journal of Qualitative Research in Business Law, Eco-Fin, Accounting, and Statistics
ISSN : 1533-1520

6, 2018];(18). p. 27. Available at: http://ess.iesalc.unesco.org.ve/ess3/index.php/ess/article/view/476

16. UNESCO. World Conference on Higher Education: The new dynamics of higher education and research for social change and development. Paris: UNESCO; 2009 cited March 25, 2018]. Available at: http://www.unesco.org/education/WCHE2009/comunicado_es.pdf

17. Ministry of Education, Culture and Sports. European Educational Thesaurus. Madrid: MECC; 2003 cited August 12, 2017]. Available at: http://www.vocabulary server.com/tee/es/index.php?tema=1553&/formacin-profesional

18. Aitchison J. Unesco Thesaurus. Paris: UNESCO; 1995 cited August 12, 2017.