

The Virtual Modality in Higher Education of the Dominican Republic: current situation, needs and challenges

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ABSTRACT

The investigation will be developed according to the following plan is placed within the Latin American context, specifically in Dominican Republic. In this country the incursion of universities in virtual education modality is beginning to lag behind. In very few the numbers of High educational institutions have applied, within their academy offers, some online education programme. In that sense, the principal objective of this investigation is to verify the current state of virtual modality in higher education in the Dominican Republic. To know the main challenges, it faces and the needs this modality of education presents to adapt the student population demands and to be in accordance to the Knowledge society, in an era where the rise of modern information and communication technologies conditions all the social activities and, therefore, the educational processes. The specific objectives, as well as the questions that are raised, are focused on 5 main axes. This investigation plan proposes a mixed research methodology and combines quantitative and qualitative methods. The research is intended to be descriptive and exploratory, so there are no hypotheses, but research questions that will be answered following an appropriate methodology for this research.

CCS CONCEPTS

• Applied computing-E-learning
computing-Learning management systems
computing-Distance learning
• Applied
• Social and professional
topics-Computing education

KEYWORDS

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Virtual modality, online education, Higher Education, Latin America.

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1 Introduction

The rise of Information and Communication Technologies and the advances of Cyberspace have revolutionized social interactions in all areas. Consequently, the educational processes have been transformed to respond to the new demands of this new era. University education has had to make the leap to adapt teaching-learning processes where the component of cyberspace resources is fundamental. Therefore, during the last two decades, virtual training or e-learning has become the new paradigm of higher education around the world.

This research looks for knowing the situation of the virtual modality in higher education in Dominican Republic, as well as the challenges and needs of this modality, starting from the Latin American scope. For this research, no experimental hypotheses are proposed, but rather it is a descriptive or exploratory type of research. For this reason, some research questions are posed, which will be answered with a mixed education research methodology, where quantitative and qualitative research methods are combined, both in data collection and analysis.

The objectives, as well as the questions that are raised, are focused on 5 main axes: the opinion of the institutional manager; the offer of programs in the virtual modality of the Universities; the teaching or other personnel with training; the expectations, demands and needs of the student population and the theoretical-methodological foundation used for the modality.

Among the bibliographic findings are the low investment of the State in the virtual modality; the need to apply public policies that favor virtual education; the little incursion of universities in online educational programs and to define the theoretical and methodological bases used in the virtual modality. This research will highlight the aspects that must be strengthened in virtual

higher education and will contribute to overcoming the existing obstacles for the advancement of the virtual modality education in Dominican Republic.

This writing is structured as follows: Starting with the introductory section, follows the presentation of the context and the justification of the project. Then the research objectives and questions are presented, followed by the methodology that will be used in the development of the research. It is followed by the section on resources and means available for the execution of the study; temporary planning for the development of research and thesis; the conclusion and, finally, the bibliographical references.

2 Background and Justification

At the end of the 20th century “the information and communication age”, also known as the “learning and knowledge society”, emerged. According to Pozo [1] this new society arose because of the scientific advances of the last decades of the twentieth century, especially information and communication technologies (ICTs). More recently, together with previous conceptions, our era is referred to as “Global Society”, “Digital Society” or “Network Society”, due to the impact that digital and networked media have had on the transformation of social processes [2] Consequently, educational processes have been challenged to transform themselves to adapt to new social paradigms [3].

In this background, the so-called “distance education”, which emerged as a learning space to respond to educational needs at the end of the nineteenth century and throughout the twentieth century, had to make the leap to distance education as a real alternative to the consolidation in the educational field of designs based on digital and collaborative technologies [4]. Thus, when ICTs begin to diminish the barriers of space and time and expand the possibilities of interaction among the diverse educational actors, the terms e-learning, online education and virtual education or virtual training emerge to designate this new educational reality [5, 6, 7, 8, 9, 10]. During the last two decades, virtual education or e-learning has become the new paradigm of higher education around the world. More and more universities and higher education institutions are adding completely virtual degree and postgraduate programmes to their educational offer, especially private ones [11].

In the current Latin American background, and within the framework of the V International Forum on Higher Education in Virtual Environments held at the National University of Quilmes (Argentina) in 2018 [12], specialists and educational authorities analyzed the main problems facing virtual education in Latin America. They highlight the scarce state funding for greater coverage and investment in research projects. They also detected the need to implement public policies that favor virtual education. The region also needs a regulatory legal framework in line with current needs and parameters.

In the specific case of Dominican Republic, the incursion of universities in “virtual education” is very reduced. The virtual modality in the country is in a process of transition from an academic pedagogical model to a technological one. The practice

of e-learning in Dominican higher education requires a clear theoretical and methodological basis, new ways of conceiving educational processes, and greater teacher training. In this connection, there are no clear and unified criteria among higher education institutions that have entered virtual education. The country needs updated laws that guarantee the inclusion and financing of the virtual modality, as well as a regulation that specifies conceptual and methodological aspects that guide the actions of virtual education in the country. (SEESCyT, 2001; SEESCyT, 2004 [13, 14].

The development of this topic will allow to deepen in the real needs of the virtual modality of higher education in Dominican Republic and will generate the creation of new spaces of reflection so that, from the same institutions of higher education, the transformations required to make the great leap are generated.

3 Research Objectives

3.1 Main Objective

To identify the current state of Higher Education in the virtual modality in the Dominican Republic, as well as the needs and challenges it presents in order to adapt to the knowledge society.

3.2 Specific objectives

To identify the programs that are offered in Dominican higher education institutions in the virtual modality.

To verify the level of training in virtual education or e-learning that the professors of the Dominican universities have.

To list the expectations, demands and needs of the higher-level student population in relation to the educational offerings of national universities.

To know the theoretical-methodological foundation that prevails for e-learning practices in Dominican higher education institutions.

To contrast the opinion of the university manager on the needs, challenges, difficulties and opportunities of online training today.

4 Research Questions

Since it is not possible to establish experimental hypotheses, but rather descriptive or exploratory research, we pose a series of research questions to which we will answer following an appropriate methodology.

4.1 With respect to the offer of programs in virtual modality of the Universities:

Which dominican universities offer virtual education programs in the 2019-20 academic year? What type of programs do they offer (accredited, levels, specialties, income profile, personnel, etc.)?

What facilities/flexibilities do these programs have to access them?

Are the contents taught self-designed or adapted from other programs?

What are the major obstacles to the implementation of virtual education programs?

4.2 In relation to teachers or other trained personnel:

What skills should a teacher have for the virtual education modality?

How many of the teachers who teach in the virtual world are trained in virtual education?

What type of training do they have: Doctorate, Master's, Specialty, Diploma?

How is the training of teachers according to the area in which it is performed? Do tutors have training in tutoring, and those who make contents in this subject, etc.?

Do universities promote and manage the training of their teachers and staff involved in virtual programs?

What are the main challenges, obstacles, problems faced by teachers in virtual programs?

4.3 As for the expectations, demands and needs of the student population:

What are the current educational needs of upper-level students?

How is the satisfaction of the student population in relation to the educational offerings of the universities: modalities, costs, type of programs?

In which situation(s) does a student prefer a virtual program to a face-to-face one?

What should virtual programs look like from the student's perspective?

4.4 Based on the theoretical-methodological foundation:

Is there a theoretical-methodological foundation defined and coherent in universities for virtual education programs?

How is the teaching process conceived?

What is the methodology used?

How is learning conceived?

What is the conception and how is the evaluation process approached in virtual education programs?

4.5 With respect to the opinion of the institutional manager:

4.5.1 State Institution:

From the Ministry of Higher Education, Science and Technology (MESCYT), is there any type of funding to encourage and support virtual education programs?

Does MESCYT have mechanisms for the validation, monitoring and evaluation of virtual education programs provided by universities?

4.5.2 Universities:

How does the university manager evaluate programs in virtual education?

What is the short, medium- and long-term projection of the institution in relation to virtual education?

What advantages would be a greater incursion into virtual programs?

What challenges does the institution have to face in order to initiate or expand the offer of virtual programs? How is the support or technical support to virtual education programs?

5 Research Methodology

For the development of the objectives, a mixed education research methodology will be used, both in data collection and analysis, in order to obtain more complete information from different points of view [15]. The study will be descriptive and transversal, because the application of research instruments will seek to determine the current state of virtual education in Dominican Republic. Therefore, quantitative techniques will be combined (infer from representative samples of teachers and students) with qualitative techniques (understand the problems of the online training offer, from the indicated agents).

5.1 Research Methods

5.1.1 Population and samples:

5.1.1.1 At the institutional level. Universities: the target population are Dominican universities and higher education institutions. From these, a sample will be taken from the universities that offer some type of program in the virtual modality.

External Managers: The Ministry of Higher Education, Science and Technology - MESCYT - will be consulted to inquire about the regulations that govern the virtual modality in the country and to know the opinion of those in charge of virtual education on the challenges that higher education faces in the virtual modality.

5.1.1.2 At the level of personal information sources:

Teachers: the population of teachers is determined as those university teachers who teach in the virtual modality.

Students: A sample of the upper level student population will be taken and will be consulted to know the expectations of the students about the virtual modality.

Bibliographic sources such as printed books, repositories and scientific journals, as well as consultations with experts, will be consulted for the collection of data and information of a theoretical nature.

5.1.2 Information (variables) and data collection techniques: Semi-structured interviews with key agents of the university system in order to know the opinion of the institutional manager.

Structured questionnaire for teachers and students: In the case of teachers and students, a questionnaire will be used, with closed questions, giving the possibility of expressing an opinion, suggestion or recommendation. For the design of the definitive questionnaire, a validation process will be carried out, ensuring its technical guarantees (reliability and validity, through expert judgement and empirical validation through sampling) [16].

Assessment scales or checklists for the observation of documents and virtual platforms; for the analysis of regulations and institutional arrangements, as well as the theoretical foundations of universities.

5.1.3 Data analysis:

Once the field work has been carried out, the data from the questionnaires and specific tests have been collected, the treatment and analysis procedure will be carried out through the SPSS 25.0 programme (USAL licence), with which we can carry out exploratory descriptive, correlation and inferential analyses appropriate to the objectives of the study (descriptive, exploratory and confirmatory factor analyses, comparative analyses pro-groups, t-tests, ANOVA, or non-parametric tests, depending on the nature of the variables).

6 Means and material resources available

This work is developed in the Doctorate program: Formation in the Knowledge Society [17, 18, 19, 20]. being its portal, accessible from <http://knowledgesociety.usal.es>, the main tool of communication and visibility of the advances [21]. It will incorporate all publications, stays and attendees to congresses during work.

In addition, for the development of this research project, there is a grant co-financed by the Carolina Foundation, the University of Salamanca (both Spanish institutions) and the Universidad Iberoamericana (Dominican). This support is fundamental for the logistical and mobility aspects of the training and research process.

The necessary software level computing resources (SPSS, NVIVO) will be provided by the USAL and the research team.

7 Dissertation State

State of dissertation/main activities to development

Some of the activities and events that will be carried out during the development of the research are the following:

7.1 Activities in cycle 2018-2019

- Attendance at seminars and workshops
- Planning and elaboration of the research plan
- Presentation and evaluation of the research project
- Planning of the systematic review of literature
- Adaptation and validation of research instruments

7.2 Activities in cycle 2019-2020

- Participation in congresses TEEM2019
- Attendance at seminars and workshops
- Elaboration of the systematic review of literature
- Application of data collection instruments

International stay in Instituto Tecnológico de Monterrey, Monterrey, México.

Participation in SEP Congress

7.3 Activities in cycle 2020-2021

Development of the Theoretical Framework

Participation in workshops and congresses

International stay in Universidad Abierta para Adultos (Santiago, R.D.)

Thesis Director Review and Approval

Edition, review and presentation of the doctoral thesis

8 Conclusions

The research that we want to develop through the plan presented in this Writing is not intended to respond to all the needs of the virtual modality in Dominican higher education, but it does intend to surface the challenges of the modality and the many needs of this to respond the demands of the students and give suggestions to the institutions involved about the possible improvements that could be implemented. It is also intended to create spaces for reflection and analysis from which relevant actions arise through which the virtual modality in Dominican higher education makes the real leap and manages to meet the challenges and overcome the barriers that prevent it from being a real offer of Education in the current moments.

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