Revista Científica Interdisciplinaria Investigación y Saberes
2022, Vol. 12, No. 2 e-ISSN: 1390-8146
Published by: Universidad Técnica Luis Vargas Torres

Impact of the shift from face-to-face to virtuality in higher education

Impacto del cambio de la presencialidad a la virtualidad en la educación superior

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Received 2022-01-02
Revised 2022-03-11
Accepted 2022- 04-04
Published 2022-05-04
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Pages: 132-140

Abstract

The present work deals with the impact of the change from face-to-face to virtuality in the face of the Covid-19 pandemic as a driver of ICTs in higher education, in which everything related to the use of ICTs will be shown and how currently they are being the protagonists of the activities in higher education so that it can continue its course in the midst of the pandemic, the measures taken to safeguard the safety of the entire university community by its authorities will be shown, one of them is confinement or forty to prevent their community from being exposed to Covid-19 contagion and so that academic activities can continue, it was decided to make use of ICTs in a very significant way since it is currently the most feasible way, we will have concepts, data both of Covid-19, ICTs, Higher Education, as well as the use of ICTs. In this work we can also find surveys carried out on both students and teachers about ICTs in higher education in quarantine, we will indicate our appreciation of the academic processes and the benefits of the use of technologies.
Keywords: differentiation strategies, SMEs, operability, quality, adaptation.

How to cite this article (APA): Ortiz, K., García, R., Ortiz, C. , Sánchez, R. (2022) Impacto del cambio de la presencialidad a la virtualidad en la educación superior, *Revista Científica Interdisciplinaria Investigación y Saberes, 12(2)* 132-140.

Resumen
El presente trabajo trata sobre el impacto del cambio de la presencialidad a la virtualidad ante la pandemia del Covid-19 como impulsor de las TIC en la educación superior, en el que se mostrará todo lo relacionado con el uso de las TIC y cómo actualmente están siendo las protagonistas de las actividades en la educación superior para que ésta pueda continuar su curso en medio de la pandemia, se mostrarán las medidas que se han tomado para salvaguardar la seguridad de toda la comunidad universitaria por parte de sus autoridades, una de ellas es el confinamiento o la cuarentena para evitar que su comunidad esté expuesta al contagio del Covid-19 y para que las actividades académicas puedan continuar, se decidió hacer uso de las TIC de una manera muy significativa ya que actualmente es la forma más factible, tendremos conceptos, datos tanto del Covid-19, las TIC, la Educación Superior, así como el uso de las TIC. En este trabajo también podemos encontrar encuestas realizadas tanto a alumnos como a profesores sobre las TIC en la educación superior en cuarentena, indicaremos nuestra apreciación de los procesos académicos y los beneficios del uso de las tecnologías.
Palabras clave: estrategias de diferenciación, pymes, operatividad, calidad, adaptación.

Introduction

The impact that COVID and therefore virtuality has had since its appearance has generated a great repercussion at a global level in many areas, one of the most affected being education at all levels at the higher education level, but a way has always been found through which teaching can emerge, which is the main factor involved from face-to-face to virtuality.

There are sufficient reasons to be able to resort to the Information and Communication Technologies to correctly fulfill the respective professorships, the unanimous communication from the student to the professor.

Therefore, ICTs have generated an innumerable impact in all areas of development being one of the most prominent at the student level, as it has the ability to reconnect those classroom interactions that currently can not be given personally, that is why technologies are being the main and only channel of communication thus capturing the attention to investigate more in the technological field.

The adaptation to the current circumstances takes certain steps to achieve a total coupling to the way classes were conducted, always preserving the principles, values, ethics and morals that we have been learning throughout the educational development, giving it the interest of the case and at the same time understanding that everything is revolving around information and communication technologies.

There are also what we can see as a demand or an opportunity for the COVID to exploit ICTs to a higher level, evolving and strengthening their schemes, as we find new launches of technological platforms that are very useful, both for the student and for the teacher giving the corresponding facilities, being of accessible and practical use to manipulate.

Currently it has been possible to reflect worldwide the closure of university establishments in most countries, affecting millions of students and teachers because of the pandemic of COVID-19, all this is due to safeguard the welfare of both parties involved as well as all areas that are immersed in this area, and not have the serious risk of getting this virus that already millions of people are carriers of the same, avoiding the spread of this disease.

However, ICTs are the fundamental tools that can deal technologically with all kinds of problems that may arise and this would not be the exception, since it involves the transmission, processing and digitized storage of information.

Therefore, several developments and advances in technologies are being carried out in order to combat with personal safety and well-being of personal integrity and thus give the green light to new projects and processes where the main protagonist is ICTs.

In any case, there will always be limitations that can be crossed in this type of advances in education, taking into account the main problem we have in the world today is called pandemic.

Benefits of ICTs in higher education pre-pandemic, pandemic, post-pandemic:

Contribute to the teaching methodology; this will provide an attraction for the student, so that the teacher can use certain methods and initiatives of new technologies that contribute to the student's development.

Academic planning; the different platforms allow the accessibility and impulse so that the student can achieve essential levels in the professional field.

Cost reduction; with the different technological programs we can forget about the physical materials that generate expenses.

Ease of information and receipt of documents; in the administrative field it is very feasible and manageable to access digital procedures avoiding physical ones.

Improvement in the student-teacher relationship; they will gain greater communication that will help strengthen the connection of those involved.

Computer security; of utmost importance to avoid damages, expenses and invasion of privacy.

Simplification of support materials; by simply having a technological tool such as a smart phone that has the capacity to perform all the functions, there will be no need for books, notebooks, erasers, pens, folders, among other resources that were usually used.

General Objective

To inform and raise awareness about the level of impact from face-to-face to virtuality, as a driver for the development of ICTs in Higher Education as one of the most feasible ways to continue with the development of academic activities.

Specific objectives

1.- Provide specific information on the technological tools that will be used for academic activities in relation to ICTs, their use, importance and benefits.

2.- To develop outreach activities on the use of ICTs with audio-visual material that teaches in a practical and simple way the use of the most commonly used applications for current academic interaction.
To demonstrate how work models in higher education have changed, creating new needs in the use of ICTs as a route of continuity for educational activities in all areas.
4.- To raise awareness of the environmental benefits obtained by the use of ICTs before and after the pandemic.

MATERIALS AND METHODS

Given the topic we are analyzing and developing which is "The impact of covid-19 as a driver of ICTs in higher education" and this gives us the guideline to show that it is a type of exploratory research as we are approaching the whole development of higher education using ICTs as the most feasible way for the continuity of its activities in general in the midst of this pandemic.
As a result of the depth of this project that we are carrying out, which we remain immersed in the management and structural development that come to give us the ICTs in digital mechanism on issues of ease and feasibility and reduction of materials, therefore we have given by concrete that we try to achieve expand the new models of habits that involve the Higher Education and make aware the community of the same in general, that with the passing of the years education is in the need to scale new levels of quality and learning to form properly enlightened professionals, in addition to develop in their respective areas with the latest updates in their significant fields and to be a potential competition in education and the profession they get to exercise.
The platform used to conduct the surveys is Microsoft Form, a mechanism through which the surveys were conducted and which we addressed to students and teachers who are mainly involved in the specific area of the academic process that concerns each higher institution and who were therefore affected by this eventuality of COVID 19.

Table 1. *Population and Sample Size.*

State	Population	Sample	Instrument
Student	15926		Survey

Professor	506		Survey
TOTAL	16432	267	

At the level of Ecuador we have 60 universities which are currently under the mechanism of online classes, for now there is no statistical data for 2019 and 2020 so we took data from 2018 of which we have a record in Higher Education of 302592 students enrolled in Universities and Polytechnic Schools with respect to the 3rd level taking into account a single cycle. on the other hand, tenured teachers registered in 2018 is 9608, which therefore between students and teachers add 312201 who are the main involved in the higher academic process.

Of the 60 universities there are 19 operating within Guayaquil, from which we are going to focus to draw the sample, having said this, covering Guayaquil which has 31.67% of the total number of universities in Ecuador being the highest percentage, we have a total of 16,432.

Making the sample formula for the total selected and justified population of 16,432, we obtain a sample of 267 people to be surveyed in order to be able to base our argument regarding ICTs on this information.

Table 2. *1. Can you access an Internet connection network?*

Options Categories	frequency	frequency absolute relative	frequency relative	absolute frequency accumulated	relative frequency accumulated
1	Yes	263	98,50%	263	98,50%
	No		1,50%	267	100%
Total		267	100%		

Source: Survey
Prepared by: Researchers

Results

In studies such as the Ulloa & Ortís, (2016) market research shows us that the majority, with 35.42%, prefer to travel outside the city in their free time, followed by 26.56% who like to visit fun centers or family entertainment, which would be very beneficial due to the fact that they would indeed travel to Naranjal to visit this tourist establishment with friends or family.

According to the research conducted to find out what people would like to find in the park, it was concluded that the majority, with 46.09%, would like a chocolate fair, which offers all kinds of chocolates and delights the palates of all visitors.

The market research determines that both medical service and parking are requirements that people want to find when going to a theme park, and that give them that sense of security they need, each with a percentage of 25.78%.

The market research (Mora & Díaz, 2013 p. 73) The market research determines that 38.02% of the sample prefer mechanical games within a theme park, that is, it is necessary to offer attractions to the taste of all ages, as well as to offer a good live show that delights the attendees, since 25% like it.

According to the research conducted to find out what people would like to find in the park, it was concluded that the majority, with 46.09%, would like a chocolate fair, which offers all kinds of chocolates and delights the palates of all visitors.

The research of Baigún & Ferriz, (2003) determines the type of food that respondents will consume concludes that 44.53% prefer fast food, followed by 33.59% who want regional or typical food. It is important to take this need into account in order to know what type of food and beverage establishments will be set up at the site.

The results on people's willingness to pay the entrance fee show that the majority, with 63.28%, would pay a price in the range of $15 to $20. The market research shows that 39.58% of the respondents associate the price to be paid with the mechanical and non-mechanical attractions to be implemented in the theme park, followed by the infrastructure at 23.70%. Visitors expect to find excellent attractions in a quality environment.

Conclusions

After the development of this project, the feasibility of the creation of this theme park in the canton of Naranjal was demonstrated, which will allow it to be projected as a tourist destination that should be visited. Thanks to the market study conducted, a level of acceptance to visit the theme park of 95% was obtained, which means an ample attraction of clients, along with the acceptance in terms of the entrance price of 63%. This is due to the fact that people are looking for new tourist and entertainment attractions in Ecuador.

According to the economic and financial study, it is concluded that the project is feasible, despite the high investment, since the Internal Rate of Return is higher than the Discount Rate, which ensures a return on invested resources. Being the only establishment that offers services of this magnitude, it has the competitive advantage of being the first over other amusement, entertainment and learning centers in the country.

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