The Covid-19 Pandemic's Impact On Peruvian Higher Education

Laura Nivin-Vargas[1], Juan Villanueva-Calderón (Corresponding author)[2], Edwin Hernan Ramirez[3], Roger Rurush-Asencio[4], Jose Sifuentes-Stratti[5], Silvia Figueroa-Quito[6]

[1]lnivin@unasam.edu.pe
Universidad Nacional Santiago Antunez de Mayolo, Huaraz, Peru.
https://orcid.org/0000-0001-5169-3597
Dr. in education
[2]jamilcarvc@crece.uss.edu.pe
Universidad Señor de Sipán, Chiclayo, Perú.
https://orcid.org/0000-0001-5272-7277
Dr. in public management and governance
[3]eramirezas@ucvvirtual.edu.pe
Universidad Cesar Vallejo, Lima, Peru.
https://orcid.org/0009-0002-8066-7448
Dr. in management
[4]rrurusha@unasam.edu.pe
Universidad Nacional Santiago Antunez de Mayolo, Huaraz, Peru.
https://orcid.org/0000-0002-2816-1629
Dr. in public management and governance
[5]jsifuentess@unasam.edu.pe
Universidad Nacional Santiago Antunez de Mayolo, Huaraz, Peru.
https://orcid.org/0009-0006-8268-3774
Msc in Public Administration
[6]sfigueroaq@unasam.edu.pe
Universidad Nacional Santiago Antúnez de Mayolo, Huaraz, Perú.
https://orcid.org/0000-0003-2986-4809
Msc in business administration

Abstract

The goal of this research is to determine the impact of the covid-19 outbreak on Peruvian higher education. Surveys were issued to 349 instructors at various institutions to obtain information. As a result of the study's findings, it appears that COVID-19 has a detrimental influence on higher education, running interruptions to teaching and learning, less access to educational and research resources, job losses and increased student debt. However, virtual education has been impeded by limited internet connectivity, a scarcity of computer equipment, and a lack of digital literacy. The study underlines the importance of adopting distance education technology in order to mitigate the consequences of COVID-19 and potential future pandemics on university education.

Keywords: University education; coronavirus; virtual education; online learning; social distancing.

Introduction

The current emergence of the coronavirus pandemic has expanded educational gaps throughout the world; yet, the coronavirus pandemic has already had harmful consequences on mankind (Cabrera, 2020; Osorio et al., 2020), as no country is immune to the pandemic at this time, The pandemic has no boundaries and its impact is massive (Zahir et al., 2020). Only a few months after the disease spread, it profoundly altered global life, forcing all people into confinement, practicing telecommuting and online learning (Velazque et al., 2020), and severely restricting people. ability to roam, trade, or associate. Covid-19 not only caused total blockades in several nations, but also resulted in the deaths of millions of people, many of them elderly.

The number of deaths caused by the coronavirus has risen dramatically with no end in sight, and the disease shows no signs of abating anywhere in the world, according to PAHO/WHO, 2020). The covid-19 outbreak prompted the president of the United States to invoke the Defense Production Act, according to Riggirozzi (2020). Coronavirus cases in the country have been steadily rising, prompting the government to declare a state of emergency. Many stimulus packages have been approved by the Peruvian government to fight the coronavirus pandemic and provide some support to households and businesses affected by the disease (Delgado, 2020).

The Peruvian government has provided several economic subsidies in clear show of support to businesses and families that were affected by the health emergency, among them can be shown: Bono familiar universal; Bono para los independientes; Bono rural, all of S/ 760 soles; Subsidio para microempresas, a salary bonus of 35% of the worker's salary (Abizaid et al., 2020).

Everything from education to sports to entertainment to religion to social

contact to business and politics were affected by the covid-19 epidemic (Garcia et al., 2019). In fact, the whole world was at risk as a result of the increase of covid-19 cases, Since then, the coronavirus pandemic has continued to wreak havoc on the higher education system, which has been particularly hard hit by it. In Peruvian universities, the summer cycles were suspended and they had to migrate to online education and finish the cycle without prejudice to the students. On the other hand, for the 2020 academic semesters, the National Superintendence of University Higher Education (SUNEDU) and the Ministry of Education (MINEDU) authorized the operation of academic activities virtually. This is an opportunity for universities to show their capacity to adapt and update themselves in the use of virtual platforms so as not to interrupt their activities during 2020 (RESOLUTION_N°_039-2020-SUNEDU-CD, 2020).

Responses to the coronavirus pandemic

As a precautionary measure, some countries deployed their military forces to restrict the mobility of their citizens, a move aimed at reducing the spread of covid-19. Blockades were implemented in nearly every country. According to UNESCO/IESALC (2020), Protection robes, disinfectants, masks, and hand gloves were all in high demand. Countries like the United Kingdom and the United States welcomed medical practitioners who were already treating or prepared to address the effects of covid-19. As a result, big meetings and athletic events, such as the coveted European Champions League, were postponed both domestically and abroad, for example.

More than 2 million students were impacted by the closure of institutions in Peru, and at one time, China was overtaken by the nation in terms of the number of coronavirus infections, but the country is committed to battle the epidemic. Universities across the country were forced to close as a result of the Coronavirus, but the government also ordered the activation of virtual classes (Decreto_ Supremo N° 008-2020-SA, 2020). Outdoor meetings of more than two persons were also outlawed, and a budget of 5 billion soles was allocated to combat the spread and impacts of the coronavirus. However, the epidemic of the A coronavirus continued to spread throughout the country, despite government efforts to limit it. Despite these attempts, the virus claimed the lives of 206 people in one day across the country.

Many countries were suspending face-to-face education while others like Brazil, Colombia and Argentina continued to offer face-to-face classes. While the early closure of universities was a positive step to contain the epidemic, it had some negative consequences for students who encountered numerous obstacles while pursuing their education.

The consequences of Covid-19 on higher education

Coronavirus outbreaks have a negative impact on educational activities conducted across the world, according to the United Nations. The coronavirus pandemic had an impact on educational systems throughout the world, resulting in the cessation of face-to-face instruction, which caused serious disruptions in academic activities. More than 100 countries implemented nationwide closures, impacting more than half of the world's student population (Cabrera, 2020).

It's probable that the disruption caused by covid-19 in the school sector may last longer than expected, especially if a more effective coronavirus medication is not produced quickly and the disease spreads on a global scale. If maintained, this might undermine the right to education (Velazque et al., 2020).

Students, faculty, parents, and society at large may face major issues if colleges are forced to shut down unexpectedly (Osorio et al., 2020). The effects of college closures on students' academic interests and academic performance could be detrimental, and this could lead to a rise in crime, a decrease in interest in learning, and a decrease in academic performance. (Abreu, 2020; Grau et al., 2018) state that college closures are highly controversial and can affect a large number of students.

The impact of college closures can be minimized in some cases by technology, but it cannot fully compensate for the impact of face-to-face interactions between students and professors. A further problem is that many students do not have access to the essential assistive technologies, making it more difficult to realize the full potential of educational technology (Goes et al., 2020).

Effects of Coronavirus University Closures

So, university closures are not only for calamities or pandemics but are also a purposeful endeavor to remedy certain recognized holes in an institution's operations. For example, university administrators in Huaraz routinely close the campus in order to handle security I issues (Velazque et al. 2020), for example, this means that university closures are not only for emergencies or pandemics, but are also a deliberate effort to address some identified gaps (Velazque et al. 2020; Rodriguez-Morales et al., 2020). Many students were out of college as of March 16, 2020, as a result of university closures in reaction to covid-19.

When it comes to closing universities, Garcia-Pealvo (2020) says that they may be both proactive and reactive. The fact that several universities only close their doors after personnel have been infected with the coronavirus means that proactive university closures are more common. In addition, Velazque et al. (2020) As a result, students, professors, and particularly those with finances, may face increased challenges as a result of the closure of institutions as a result of the coronavirus outbreak, according to this statement. It makes it more

difficult for parents to care for their homes and supervise their children's education at the same time (Alcantara, 2020). Due to a lack of interest and resources, students may drop out of college due to a prolonged college closure, this can result in bad peer influences and juvenile engagement, both of which are detrimental. College closures can also lead to an increase in crime rates, since lengthy college closures can result in inactivity, which can lead to bad peer influences and juvenile engagement, among other things.

According to UNESCO/IESALC, 2020, some of the detrimental impacts of the cessation of educational activities due to coronavirus include the following: Students miss out on opportunities for growth and development when a university is closed. Inequitable access to online educational resources; unable to obtain enough technology or Internet connectivity to pursue higher education.

Considering that universities are hubs of social activity and human contacts, university closures may deprive young people of some communications and social interactions that are vital to learning, growth, and creativity.

It has been suggested by Horobin (2020) that the coronavirus can be managed without the need to close colleges. In the wake of the coronavirus epidemic, the president of SUNEDU opposed the opening of universities since the design of universities and the size of classrooms make it hard to adopt social distancing there. He stressed, however, that government should enable parents to make the best decisions for their children while simultaneously enacting greater mitigating measures (Tarabini-Castellani, 2020). While acknowledging the apparent challenges associated with the closure of universities due to coronavirus (Garcia et al., 2019).

Virtual university education possibilities

Because of the increasing reliance on technological tools in the classroom, educators have been forced to rethink their traditional roles as information dispensers and have adopted more flexible roles that allow them to serve as educators who guide, mentor, and inspire their students to take an active role in their education (Zapateria, 2020).

The efficiency of virtual education is dependent on a variety of factors, including proper Internet connectivity, appropriate learning tools, digital abilities, and the availability and accessibility of technology (Marciniak & Gairin, 2018; Singh et al., 2020). There is a connection between virtual education and remote education, as well as to the development of digital technologies that make it feasible to provide lectures and activities effectively and through a secure connection (Garcia-Pealvo, 2020; Borgobello et al., 2019).

A wide range of online education tools/platforms may be used to close gaps in education, especially during outbreaks like the coronavirus pandemic, which has a strong penetration of internet and mobile technologies around the world,

Whatsapp.com; Blackboard; Moodle; Cisco Webex meet; Google Drive; Dropbox.com; Microsoft Teams; GoToMeeting and GoTowebinar.

Student-teacher contact, networking, and interpersonal ties in distance learning, and the enhancement of teaching and learning experiences are all made possible thanks to the use of educational technologies (Britez, 2020). Educators are now able to communicate with their students from any location and at any time thanks to new technology, and lectures can be scheduled whenever it is most convenient for everyone involved (including the students) (Velazque et al., 2020). Additionally, teachers can use these technologies to enhance their digital skills in line with emerging trends in education (Borgobello et al., 2019; Pozos & Tejada, 2018), as well as technology literacy increases educators' interest, competence and confidence as well as performance and prepares them for the future (Pozos & Tejada, 2018).

The difficulties of studying at home

College students all throughout the country are scrambling to get their work done now that the coronavirus pandemic has hit. It's nothing new because the house has always been the heart of learning, especially in informal education (Marciniak & Gairn, 2018). However, students are increasingly taking classes at home as a new normal. Tarabini-Castellani (2020) claims that most college students still choose to study in the convenience of their own homes since they have everything, they need at their fingertips without having to leave their chairs. Although many teachers, students, and parents would like to be able to receive formal education from home, the reality is that this may be difficult for some, especially in places where technology is not widely accessible, available, or used in education. This may be due to a variety of factors, such as the high cost of virtual education.

It has been reported by UNESCO/IESALC (2020) that in response to the coronavirus university closures, MINEDU has created an online guide with links to distance learning applications, as well as other resources. The university closures induced by coronavirus can be exploited as a chance for students' problem-solving and digital competencies to grow, according to Fuster-Guillén et al. 2020.

Method

Design

This is a descriptive and correlational study, because it is an atypical situation, this time of pandemic that the world is experiencing and affects university education, a non-experimental and cross-sectional design was adopted, because the data were collected at a single time using the survey technique and its instrument the questionnaire.

Participants

The present study included 349 teachers from different universities in the Ancash region, such as: Universidad Nacional Santiago Antúnez de Mayolo, Universidad Nacional del Santa, Universidad San Pedro, Universidad los Ángeles de Chimbote and Universidad Cesar Vallejo. Of those surveyed, 45.30% were appointed teachers and 54.70% were hired, with males representing 53.90% and females 46.10%. In addition, 58.60% of the respondents were from public universities and 41.40% from private universities.

Instruments

A questionnaire consisting of three parts was elaborated, the first: Sociodemographic variables: age; sex; marital status; institution of belonging; status and years of service. The second part refers to the effects of the pandemic on education, which consists of 10 questions, and the third is related to the barriers that impede an adequate virtual education in university education, which is made up of 10 questions. These instruments passed an evaluation by three expert university teaching Renacyt researchers, and subsequently the data obtained were analyzed using STATA Version 15.1, to measure reliability with Cronbach's alpha (Quezada, 2017), for pandemic effects with a value of 0.879, and for the barriers that prevent a virtual education a value of 0.875.

Procedures

Due to the mandatory social isolation on the part of the government, through Supreme_Decree_N°_044-2020-2020-PCM, (2020), the questionnaires were administered online using email and social networks as a means of sending, using the Google forms tool.

Data analysis

Participants accepted their participation through informed consent, these data were homogenized in an Excel database to then perform regression analysis and ANOVA to identify the effects of the Covid-19 pandemic in Peruvian university education, such analysis was performed through the STATA statistical package in its version 15.1.

Results

Table 1 Regression analysis summary

Model	R	R^2	Standard error of estimation
1	0.60	0.36	0.74

Table 1 shows the R value which is equal to 0.60, which indicates the existence of a high correlation between the variables studied, R2 is a measure of the overall variance in education that can be explained by the independent

variables, such as interruptions in learning, increases in instructors' debt, loss of jobs, prolonging studies, research limitations, dropouts, and restricted educational options. As a result, independent factors account for 36.40 percent of the dependent variable.

Table 2 ANOVA results

Model	Sum of squares	df	Mean square	F	p
Regression	29.324	8	3.64	7.44	0.00
Residual	82.468	141	0.66		
Total	122.7	168			

Table 2 shows that at a 99% confidence level there is a significant relationship (p=0.00; p<0.01) between the variables studied in a Coronavirus pandemic situation.

Table 3 Table of coefficients with P value

N° Hypothesis	Model	unstandardized coefficients		standardized coefficients	t	p
		B	Standard Error	Beta		
H_1	Interruption of learning	0.25	0.11	0.18	2.13	0.00
H_2	Increased teacher debt	0.09	0.09	0.08	2.86	0.00
H_3	Job losses	-0.06	0.08	-0.06	2.06	0.00
H_4	Prolonged study	0.05	0.10	0.04	2.44	0.00
H_5	Research restrictions	-0.12	0.09	-0.10	-1.20	0.00
H_6	Student dropout	0.33	0.10	0.22	0.39	0.26
H_7	Limited educational opportunities	0.41	0.11	0.28	0.76	0.49

Table 3 shows the analysis of the coefficients that allude to each of the hypotheses raised in the present study. Thus, we can see that at a 99% confidence level, significant values are found in the interruption of learning (p=0.00; p<0.01), the increase in teaching debt (p=0.00; p<0.01), the loss of jobs (p=0.00; p<0.01), prolonged study (p=0.00; p<0.01), and restrictions to research

(p=0.00; p<0.01). 00; p<0.01), job loss (p=0.00; p<0.01), prolonged study(p=0.00; p<0.01) and research restrictions(p=0.00; p<0.01) considered as effects on education under Covid-19 pandemic conditions, as a result of the regression analysis (Pelaez, 2016). Similarly, it was possible to identify at 99% confidence levels that there are no significant values regarding student dropout (p=0.26) and limited educational opportunities (p=0.49).

Discussion

The study shows that the Covid-19 epidemic had a terrible impact on university education, resulting in interruption of learning, increased faculty debt, loss of jobs, delayed studies, research limits, dropouts, and reduced educational chances, among other repercussions. Students from low-income backgrounds and those living in rural regions lost out on educational chances as a result of the Covid-19 epidemic, according to the findings of Cabrera (2020).

Some 79% of respondents claimed that they were unable to participate in virtual education because they didn't have access to computers or internet. This was the most common reason given by those surveyed. Similarly, problems of unavailability and accessibility as well as network difficulties also hampered education.

University activities were disrupted and disadvantaged students were displaced, and multiple barriers to teaching and learning were created, according to the findings of this study. Teachers' debts and pressure on parents were also exacerbated by this pandemic, which is consistent with the statement of Zahir et al. (2020) that the closure of universities may add stressors to students who are already under a great deal of stress. College teachers must use emerging technologies because of the changing learning environment and the need for greater creativity and innovation in their classrooms, according to Gonzalez and Moneta (2019). This study contributes to the growing knowledge about how the coronavirus affects college education and the need for technology to better adapt to virtual classrooms.

Conclusion

Through regression analysis, a simple correlation of 0.60 has been demonstrated, indicating a high degree of correlation. That is, variables in education can be used to explain their results; interruption of learning, increase of teaching debts, loss of jobs, prolonging studies, research restrictions, dropouts, limited educational opportunities.

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