

Inequality Gaps In Higher Education During The Covid-19 Pandemic

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Abstract

A systematic review of the production and publication of research papers on the study of the Inequality Gap in Higher Education during the Covid-19 pandemic was carried out under the PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) approach. The purpose of the analysis proposed in the present document was to know the main characteristics of the publications registered in the Scopus and WoS databases during the period and their scope in the study of the proposed variables, achieving the identification of 86 publications in total. Thanks to this first identification, refining the results through the keywords entered in the search button of both platforms, which were inequality gaps, higher education, covid-19, and reaching a total of 21 documents, already excluding duplicates and those that did not meet the analysis criteria. The identified scientific publications were analyzed in order to know the main characteristics within the execution of research projects related to the study of social inequalities evidenced during the execution of virtual strategies to comply with the academic calendars in higher education despite the difficult health situation that was experienced due to the Covid-19 pandemic and how people with a socioeconomic level below the average, were those who in their majority, presented great difficulties to access the tools designed in the virtualization of academic content.

Keywords: Inequality Gaps, Higher Education, Covid-19.

1. Introduction

The recent history of the world has been marked by the appearance of the virus called Covid-19, which caused the declaration of a pandemic by the World Health Organization (WHO) due to its rapid spread and presence in different continents, as well as its lethality, which prompted world governments to declare measures such as mandatory restrictive quarantine as the main strategy to promote social distancing and thus reduce the high number of infections and deaths due to it. Multiple economic sectors were affected by these measures, which generated a high level of uncertainty in the face of an uncertain future, to which the education sector responded by making use of digital tools to give continuity to academic training through ICT so that the virtualization of academic content was the main strategy to meet the objectives in education (Avendaño-Castro et al., 2022; Prada Núñez et al., 2022; Hernández Suarez et al., 2022; Hernandez Suarez et al., 2022; Hernández Vergel et al., 2021; Hernandez Suárez et al., 2021; Hernández Suárez et al., 2021; Maldonado Estévez et al., 2021; Rincón Leal et al., 2021; Avendaño Castro et al., 2021; Avendaño-Castro et al., 2021; Hernández-Suárez et al., 2021; Gamboa Suárez et al., 2020; Ayala-García et al., 2020; Prada Núñez et al., 2020; Prada Núñez et al., 2020). The use of programs designed to provide students with the possibility of continuing their academic training, as well as the use of social networks and e-mails, were implemented in the development of the courses (Rojas et al., 2020; Espinel Rubio et al., 2021; Prada Núñez et al., 2020). Strengthening digital competencies in both teachers and students was essential when sharing activities within the training program. Virtuality in education was always seen as another modality to carry out academic training, an option that, in times of pandemic, became the only alternative to ensure compliance with the objectives set by the educational management; hence, it was a great challenge for all stakeholders around the institutions. These institutions made a great effort to provide students with alternatives capable of ensuring the generation of new knowledge in a virtual environment, so much so that they even implemented synchronous and asynchronous modalities where students had the possibility of attending their classes remotely, receiving training in real-time from certain virtual programs (Moreno & Molins, 2020). This was only possible if both teachers and students had digital tools and Internet connectivity at their disposal. However, one of the problems evidenced as a result of this change in the teaching methodology was the difficulty that a large number of families of a low socioeconomic level to access this type of elements, then arises the debate to what extent the State as guarantor in the fulfillment of these fundamental rights, must ensure access to education, despite the considerable gap of social inequality where hundreds of thousands of households cannot access this modality due to the difficulty to acquire technological tools that allow it. This has been one of the main problems encountered since the declaration of the pandemic because of COVID-19 concerning education. However, it is expected, through the development of this article, to know what are the main characteristics of the latent inequality gap in society regarding virtual education imposed as a measure to mitigate the devastating effects of the pandemic by Covid-19 and thus to propose strategies that allow future, more efficient management of this problem.

2. General Objective

To analyze from a bibliometric and bibliographic perspective, the production of research papers on the variable inequality Gap, Higher Education and Covid-19 published in high-impact journals indexed in Scopus and WoS databases during the period 2020 and first semester of 2022.

Methodology

The present research is of qualitative type; according to Hernández et al. (2015), qualitative approaches correspond to researches that perform the procedure of obtaining information to review and interpret the results obtained in such studies; for this purpose, the search for information was carried out in the Scopus and Wos databases using the words inequality gaps, higher education, covid-19.

3.1 Research design

The research design proposed for this research was the Systematic Review, which involves a set of guidelines to carry out the analysis of the data collected, framed in a process that began with the coding to the visualization of theories (Strauss & Corbin, 2016). On the other hand, it is stated that the text corresponds to a descriptive narrative because it is intended to find out how the levels of the variable effect; and systematic because after reviewing the academic material obtained from the scientific journals, the theories on knowledge management were analyzed and interpreted. (Hernández et al., 2015). The results of this search are processed as shown in Figure 1, which expresses the PRISMA technique for identifying documentary analysis material. It was taken into account that the publication was published during the period between 2020 and 2022 without distinction of the country of origin of the publication, distinction of the area of knowledge, as well as any publication, namely: Journal Articles, Reviews, Book Chapters, Book, among others.

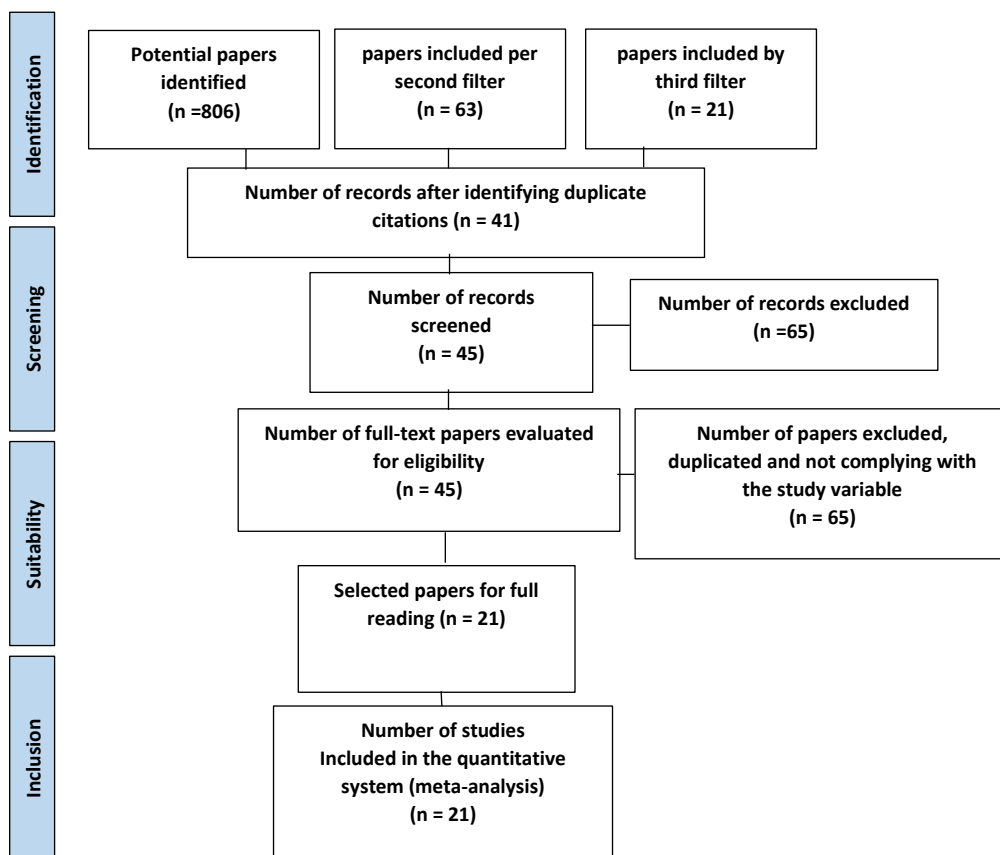


Figure 1. Flow diagram of systematic review performed under PRISMA technique (Moher et al., 2009).

Source: Own elaboration; Based on the proposal of the Prisma Group (Moher et al., 2009).

4. Results

Table 1 shows the results after applying the search filters related to the methodology proposed for this research after recognizing the relevance of each referenced work.

No.	TITLE OF THE RESEARCH	AUTHOR/YEAR	COUNTRY	TYPE OF STUDY	INDICATION
1	Impact of the Pandemic on the Teaching and Research Staff at a Technological University in Spain: Deepening the Gender Gap.	Peña, M., Olmedo-Torre, N., Alcaraz, O., Chavez- Dominguez, J. A., López, J., & Mujica, L. E. (2022).	SPAIN	QUALITATIVE	SCOPUS

	Exploring faculty perception on the COVID-19 imposed shift in higher education of Bangladesh: A neoliberal analysis.	Ahmed, S. (2022).	BANGLADESH	QUALITATIVE	SCOPUS
	COVID-19 pandemic and the narrative of the digital divide gap in universities in Sub-Saharan Africa,	Vurayai, S. (2022).	SOUTH AFRICA	QUALITATIVE	SCOPUS
	Equality in Online Education during COVID-19: Challenging the Educational Needs of Ethnic Minority Students in Vietnam	Huu, N. D., & Luyen, P. T. (2022).	VIETNAM	QUALITATIVE	SCOPUS
5	The precarity of women's academic work and careers during the COVID-19 pandemic: A South African case study.	Walters, C., Bam, A., & Tumubweinee, P. (2022).	SOUTH AFRICA	QUANTITATIVE	SCOPUS
	How Higher Education Faculty in Egypt Perceive the Effects of Covid-19 on Teaching Journalism and Mass Communication: Perspectives From the Global South.	Badr, H., & Elmaghraby, S. (2021).	EGYPT	QUALITATIVE	SCOPUS

	The influence of covid-19 on students' learning: Access and participation in higher education in southern africa.	Mphahlele, R., Seeletso, M., Muleya, G., & Simui, F. (2021).	SOUTH AFRICA	QUALITATIVE	SCOPUS
	COVID-19 within families amplifies the prosociality gap between adolescents of high and low socioeconomic status	Terrier, C., Chen, D. L., & Sutter, M. (2021).	SWITZERLAND, FRANCE, GERMANY	QUANTITATIVE/QUALITATIVE	SCOPUS
	COVID-19 and educational inequality: How school closures affect low- and high-achieving students.	Grewenig, E., Lergetporer, P., Werner, K., Woessmann, L., & Zierow, L. (2021).	GERMANY	QUALITATIVE	SCOPUS
	Socioeconomic status and school absenteeism: A systematic review and narrative synthesis.	Sosu, E. M., Dare, S., Goodfellow, C., & Klein, M. (2021).	UNITED KINGDOM	QUALITATIVE	SCOPUS
	The implications of covid-19 on institutions of higher learning: A case of Zimbabwe and South Africa.	Matsilele, T. (2021).	SOUTH AFRICA	QUALITATIVE	SCOPUS

	Language, Class, and Education: Deconstructing the Centre to Rethink Inclusivity in Education in Pakistan.	Tamim, T. (2021).	PAKISTAN	QUALITATIVE	SCOPUS
	U.S. Children “Learning Online” during COVID-19 without the Internet or a Computer: Visualizing the Gradient by Race/Ethnicity and Parental Educational Attainment.	Friedman, J., York, H., Mokdad, A. H., & Gakidou, E. (2021).	UNITED STATES	QUALITATIVE	SCOPUS
	Inequality in household adaptation to schooling shocks: Covid-induced online learning engagement in real time.	Bacher-Hicks, A., Goodman, J., & Mulhern, C. (2021).	UNITED STATES	QUALITATIVE	SCOPUS
	An Approach to Observing China's Higher Educational Equity: The Application of Multimedia and Database in Liberal Arts Education After Lockdown.	Jiao, Z., Shao, S., & Wang, Y. (2020, November).	CHINA	QUALITATIVE/QUANTITATIVE	SCOPUS

	Virtual education and social, economic and cultural factors in higher education students in times of covid-19	Lopez, C. M., & Alban, J. R. A. (2021).	LITHUANIA	QUALITATIVE	WOS
	Supporting students during the transition to university in COVID-19: Five key considerations and recommendations for educators.	Pownall, M., Harris, R., & Blundell-Birtill, P. (2022).	UNITED KINGDOM	QUALITATIVE	WOS
	Does school shutdown increase inequality in academic performance? Evidence from COVID-19 pandemic in China	Liao, H., Ma, S., & Xue, H. (2022).	CHINA	QUALITATIVE	WOS
	The Digital Divide of Know-How and Use of Digital Technologies in Higher Education: The Case of a College in Latin America in the COVID-19 Era	García-Martín, J., & García-Sánchez, J. N. (2022).	SPAIN	QUALITATIVE	WOS

	<p>COVID-19 AND THE REPRODUCTION OF SCHOOL INEQUALITIES: A STUDY ON DIGITAL ACCESS IN BASIC EDUCATION</p>	<p>da Silva, VVA (2021)</p>	<p>BRAZIL</p>	<p>QUALITATIVE</p>	<p>WOS</p>
	<p>A systematic review of racial/ethnic and socioeconomic disparities in COVID-19</p>	<p>Khanijahani, A., Iezadi, S., Gholipour, K., Azami-Aghdash, S., & Naghibi, D. (2021).</p>	<p>UNITED STATES, IRAN</p>	<p>QUALITATIVE</p>	<p>WOS</p>

Table 1. Flowchart of the systematic review performed under the PRISMA technique. (Moher, Liberati, Tetzlaff, Altman, & Group, 2009).

Source: Own elaboration; Based on the proposal of the Prisma Group. (Moher, Liberati, Tetzlaff, Altman, & Group, 2009).

4.1 Co-occurrence of words

Figure 2 shows the relationship between the keywords used to search the study material for elaborating the systematic analysis proposed for the present research.

knowledge regarding the variables proposed for this study. Thus, great contributions are identified as contemplated in the article entitled “The COVID-19 pandemic and the narrative of the digital divide in universities in Sub-Saharan Africa” (Vurayai, 2022), which endorses that Coronavirus Disease 2019 (COVID-19), a severe acute respiratory syndrome that the World Health Organization (WHO) declared a global pandemic on March 8, 2020, has exposed a plethora of opportunities and inequalities in education.

The above presents the implications that the virtualization of academic content has in a society characterized by high indicators of poverty and extreme poverty, which makes it difficult and, in some cases, impossible to access technological tools and connectivity, thus raising the need to update information and communication technologies (ICT) and related infrastructure within reach of many, including the vulnerable and marginalized. Similarly, social inequality is referenced in the article “Covid-19 and the reproduction of school inequalities: a study on digital access in basic education” (da Silva, 2021), whose objective was to investigate the unequal conditions of digital access among students in the current pandemic context. In this article, the researchers reaffirm the idea of how the gap between social and digital inequality has been a significant problem when evaluating the quality of education in times of pandemic since it has taken into account the fulfillment of academic objectives but has left aside the condition and economic situation of families who for some reason do not have the possibility of accessing such tools as computers, smartphones, electronic tablets, among others, as well as internet connectivity. In this way, it was possible to identify the primary needs of students not only in higher education but at all levels of education and to propose public policies that allow these families to have the possibility of continuing their academic training since this guarantees the fulfillment of the fundamental right to education even when there are confinements such as the one experienced due to the declaration of a pandemic by the WHO because of Covid-19. It is therefore important to evaluate the perceived consequences of the latent inequality in different societies, as recorded in the article “Does the closing of schools increase inequality in academic performance? Evidence from the COVID-19 pandemic in China” (Liao et al., 2022), which aimed to analyze the result of a unique survey of 7202 high school students and their parents from Shaanxi province to explore whether school closure increased the educational gap among students with different socioeconomic status (SES) of parents during the pandemic.

One of the main findings of this research is that the social gap is significantly reduced by the educational level of individuals, based on one of the results that attracted the most attention from the authors, which is that parents of students with a higher level of education, They also constitute important support in the formation of students whose motivation may be affected due to the virtuality and permissiveness of the system designed to complete the academic calendar under conditions such as those experienced by the pandemic. On the other hand, students in homes with lower socioeconomic status usually present problems in terms of academic performance since they generally do not have enough technological tools to access

virtual education imposed as a measure to preserve the health of all. In this way, it is evident that the social inequality gap has great weight in the success of the virtual strategies imposed to give continuity to the academic calendars at all levels of education, and one of the most relevant aspects is precisely the availability of technology and Internet connectivity, which in many low-income households generally does not exist.

5. Conclusions

This review article highlights the importance of knowing the updated state of the literature published in databases, such as Scopus or WoS, regarding the study of inequality gaps in higher education during the Covid-19 pandemic. Most of the authors agree that, among the implications evaluated within the virtualization of academic content, there is the difficult access to technological tools and Internet connectivity by low-income families or those of a low socioeconomic level, which represents a problem for all students who are within this percentage of families with unsatisfied basic needs.

It is evident that virtual education presents great advantages and develops important competencies in students, even at a personal level, such as self-management, responsibility, and commitment. However, one of the most latent disadvantages demonstrated through the development of the research referenced in this article is the possibility of accessing it since it depends on other variables, such as the socioeconomic level of the families. Through the recognition of this problem, it is hoped that state actors will take control of it and assume their role as guarantors of the fulfillment of Fundamental Rights such as access to education and create support programs in the training of schoolchildren and professionals through the necessary social investment. Furthermore, the development of review articles such as the one presented in this document allows for forming theoretical bases for the generation of new knowledge around the study of the inequality gap in virtual higher education during critical moments such as the one experienced thanks to the Covid-19 pandemic, hoping to have in the future new and better alternatives to generalize access to education and build nations with social equity and justice for all those who are involved in the educational process.

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