

Back to College classes within the context of COVID-19

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Abstract

A documentary review was carried out on the production and publication of research papers related to the study of the variable Back to School within the context of COVID-19. The purpose of the bibliometric analysis proposed in this document is to analyze the main characteristics of the volume of publications registered in the Scopus database during the year 2020 and the first semester of 2021, achieving the identification of 169 publications. The information provided by this platform was organized by means of tables and figures, categorizing the information by Year of Publication, Country of Origin, Area of Knowledge and Type of Publication. Once these characteristics were described, the position of different authors regarding the proposed topic was referenced by means of a qualitative analysis. Among the main findings of this research, it is found that the United States, with 42 publications, is the country with the highest production. The area of knowledge that made the greatest contribution to the construction of bibliographic material referring to the Back to School study within the framework of COVID-19 was the area of medicine with 76 published documents, and the type of publication that was most used during the period indicated above was the journal article, which represents 75% of the total scientific production.

Keywords: back to school, COVID-19, Scopus database.

I. Introduction

On February 11 in the year 2020, the World Health Organization (WHO) advised the world countries about the emergence of a disease called COVID-19, as an acronym of

COronaVirus Disease, 2019, because of the type of virus and the year of occurrence. This infection is mainly transmitted from human to human by contact through “flügge” droplets (respiratory secretions > 5 µ) and sometimes also by aerosols. Although it is an enveloped

virus, which makes it relatively unstable, it can remain on plastic or metal surfaces for 24 to 72 hours. Its infection rate is high ($R_0 =$ reproducibility number up to 5), which means that one infected person can infect 2 to 5 people, which explains its exponential growth (Escudero et al., 2020). On January 30, 2020, WHO declared COVID-19 a public health emergency of international concern, and subsequently, on March 11, with 37,364 cases reported outside China, it was officially classified as a pandemic. For the first time in history, this disease has been tracked in “real time” through different digital platforms, ICT tools and mass media, with detailed statistics and data on a day-to-day and minute-by-minute basis. At the time of this publication, more than 4 million cases and 300,000 deaths have been reported worldwide in 214 countries, giving a global lethality rate of close to 7%, according to the World Health Organization (2020).

The discovery of this phenomenon caused an enormous impact on all areas of human life, and its devastating consequences and the easy spread of this virus have led to rethink from every point of view the way in which people had been performing and also the way in which the governing states worldwide should have determined national plans that contribute to mandatory protection measures at the global level and in accordance with the current and corresponding legislation. Education worldwide was one of the factors that suffered serious effects due to the measures taken in the face of the COVID-19 pandemic, and the challenges and risks that have been faced under this premise, which have been enormous.

These preventive measures due to COVID-19 have not only affected the normal development of the activities that were being carried out in all areas of daily life, but also affected the psychological wellbeing of students, thus giving rise to the need to allocate resources for mental health services to treat the effects that may be generated by the isolation (Babativa, 2021). The return to class at this stage of the pandemic,

suppose an improvement in the pedagogical processes and additionally in the humanity of teaching. The optimization of technological tools to improve the processes should not be the only objective, but will have to emphasize the mental health of students in the midst of the pandemic and the dire consequences that it has left in its path. Therefore, it is important to know through bibliographic resources the measures adopted for the Back to School in the framework of COVID-19, so a bibliometric analysis of the scientific production registered in Scopus database during the period 2020-2021 is proposed to answer the question: How has been the production and publication of research works related to the study of the variable Back to School in the framework of COVID-19 in the year 2020 and the first semester of 2021?

2. General Objective

To analyze from a bibliometric and bibliographic perspective, the production of high impact research papers on the variable Back to School in the framework of COVID-19 during 2020 and the first half of 2021.

3. Methodology

Quantitative analysis of the information provided by Scopus is carried out under a bibliometric approach on the scientific production regarding Back to School within the framework of COVID-19. Likewise, it is analyzed from a qualitative perspective, examples of some research works published in the area of study mentioned above, from a bibliographic approach to describe the position of different authors regarding the proposed topic.

The search is performed through the tool provided by Scopus and the parameters referenced in Table 1 are established.

3.1 Methodological design

	PHASE	DESCRIPTION	CLASSIFICATION
PHASE 1	DATA COLLECTION	Data was collected using the Scopus web page search tool,	Published documents whose study variables are related to Back to School

		through which a total of 169 publications were identified.	<p>within the framework of COVID-19.</p> <p>Research papers published during the 2020-2021 period.</p> <p>Without distinction of country of origin.</p> <p>Without distinction of area of knowledge.</p> <p>Without distinction of type of publication.</p>
PHASE 2	CONSTRUCTION OF ANALYSIS MATERIAL	The information identified in the previous phase is organized. The classification will be made by means of graphs, figures and tables based on data provided by Scopus.	<p>Word Co-occurrence.</p> <p>Year of publication</p> <p>Country of origin of the publication.</p> <p>Area of knowledge.</p> <p>Type of publication</p>
PHASE 3	DRAFTING OF CONCLUSIONS AND FINAL DOCUMENT	After the analysis carried out in the previous phase, we proceed to the drafting of the conclusions and the preparation of the final document.	

Table 1. Methodological design.

Source: Own elaboration (2021)

4. Results

4.1 Co-occurrence of words

Figure 1 shows the co-occurrence of keywords within the publications identified in the Scopus database.

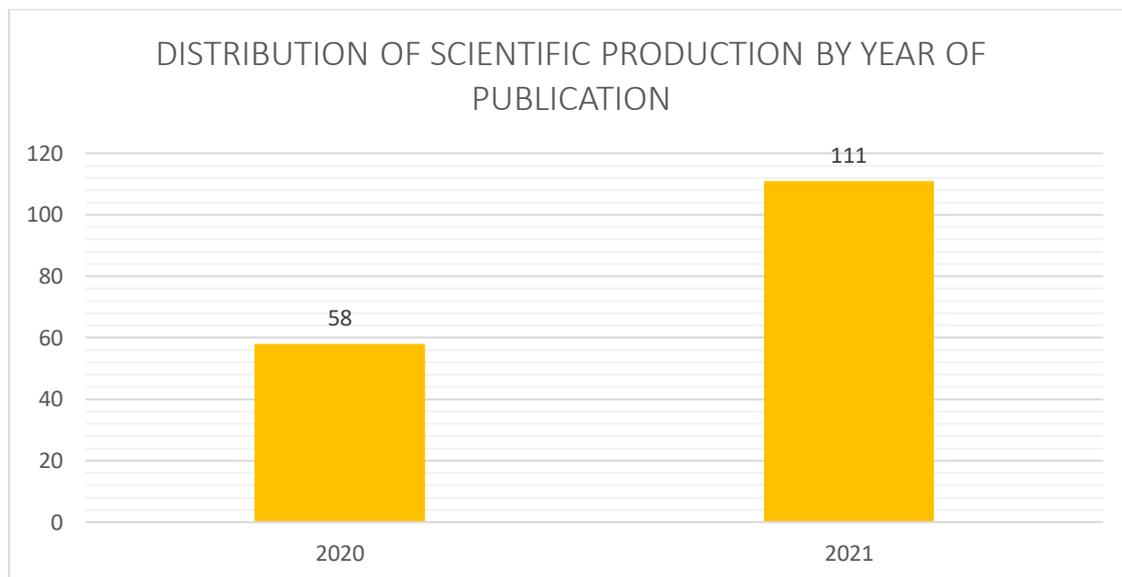


Figure 2. Distribution of scientific production by year of publication.

Source: Own elaboration (2021); based on data provided by Scopus.

Figure 2 shows how 2021 is the year with the highest number of publications with a total of 111, among which the article entitled “*Mental health problems among school-aged children after school reopening: a cross-sectional study during the post-pandemic of COVID-19 in eastern China*” stands out (Wang et al., 2021) through which a total of 6017 children were subjected, in order to determine the mental health problems, taking into account grade, gender, school level, area and caregiver-child relationship to further observe the effects of stressors on mental outcome. Such study was limited to the home quarantine period between June 26, 2020 to July 06, 2020. This study did not provide clarity on the negative impact on the mental health of children caused by the reopening of schools; however, it could be inferred that the government, schools, communities and families play a key role that lies in the constant accompaniment of children, especially those with difficulties, in favor of a healthy psychological environment. Likewise, the 2020 article entitled “*Modeling the impact of the reopening of schools on the transmission of SARS-CoV-2 using data from the Shanghai contact structure*”, which aimed to determine the impact of the reopening of schools on the transmission of SARS-CoV-2 using data from the Shanghai contact structure, was also observed (Lee, Hanley, Nowak, Bates, &

Hébert-Dufresne, 2020). The objective of this article was the overall impact of SARS-CoV-2 transmission on the reopening of schools in the Shanghai community, through a contact information model and the use of strategies to determine the level of contagion by means of different age range groups, for which it was found that the reopening would have an optimal result if the appropriate precautions of extreme contact reduction and all the biosecurity protocols that should be applied in a health emergency such as COVID-19 were maintained.

4.3 Distribution of scientific production by country of origin.

Figure 3 shows the distribution of scientific production according to the nationality of the authors.

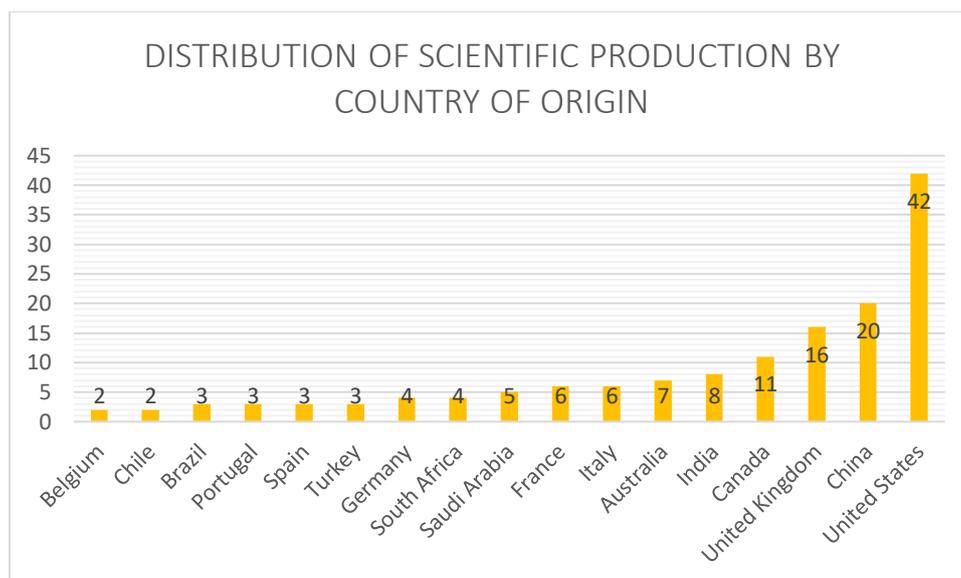


Figure 3. Distribution of Scientific production by country of origin.

The United States is the country with the highest number of bibliographic records worldwide published in high impact journals indexed in Scopus database during the period 2020-2021, with a total of 42 papers within which is the title “Athletes returning to high school sports in the COVID -19 era: Preparation for the Fall” (Asif, Chang, Diamond, & & Zaremski, 2020) whose objective was to analyze the return of athletes in times of pandemic, through the answering of 10 questions, establishing as one of the most important the impact of quarantine in high performance athletes in their mental, emotional and physical health, also establishing that the preventive isolation at home causes anxiety and depression in students due to the lack of activity, which is why it was determined that alternative ways should be found through state agencies and sports associations in policies and procedures aimed at keeping them safe and active. These articles are aimed in every way to obtain answers, ways and alternatives for the achievement of a return to a suitable educational environment. Likewise, it is evident in the figure that countries such as China have a total of 20 registered publications, followed by the United Kingdom with 16 publications and Canada with 11, being the countries with the highest production.

At this point, it should be noted that the production of scientific publications, when classified by country of origin, presents a special characteristic and that is the collaboration

between authors with different affiliations to both public and private institutions, and these institutions can be from the same country or from different nationalities, so that the production of an article co-authored by different authors from different countries of origin allows each of the countries to add up as a unit in the overall publications. This is best explained in Figure 4, which shows the flow of collaborative work from different countries.

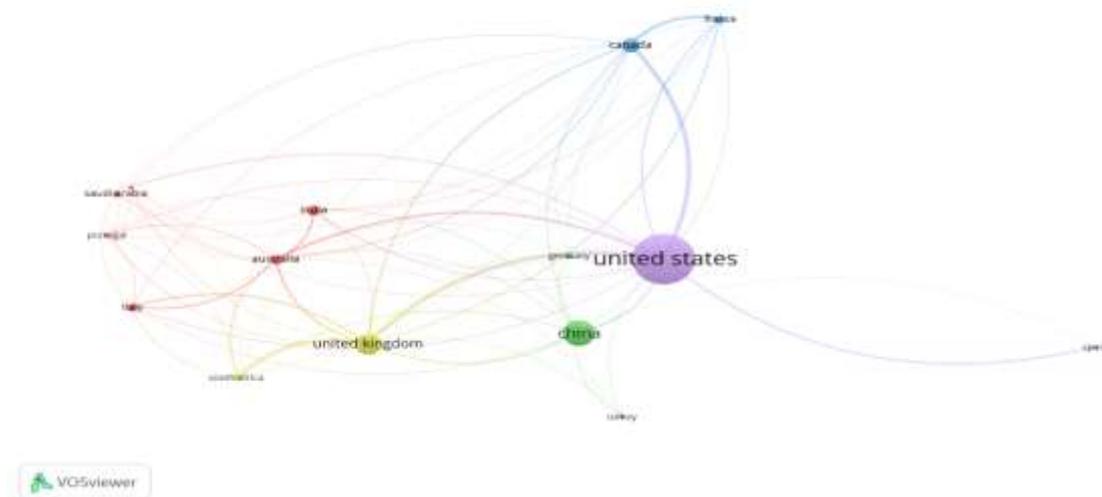


Figure 4. Co-citations between countries.

Source: Own elaboration (2021); based on data provided by Scopus.

This figure shows the United States as the country with the highest number of publications on Back to School in the framework of COVID-19, with authors affiliated to institutions in countries such as China, Canada and Germany. The second country with the most publications on this topic is China, with authors affiliated to institutions such as the country of Turkey and the United Kingdom, as well as Canada and France with publications of great contribution to the Back to School in COVID-19, highlighting the French article of 2020 entitled “*COVID-19 provokes an unprecedented educational disruption: is there a path to a new normality*”, (d’Orville, 2020). This study focused on the initiative of entities such as UNESCO and its proposed global coalition for education, asking questions such as: What should a new normality be like for future generations? How can countries use the innovation of the recovery period to “build back better”? It was concluded that the new and current generations must be resilient and adaptive in the face of the current crisis, that it is an opportunity to provide more optimal solutions, with a better approach, that are more inclusive, taking into account gender equity and equality and also making the best use of ICT tools, factors that will be very useful for overcoming the pandemic and returning to school in the midst of it. There are also

publications from countries such as Australia, India, Portugal and South Africa.

4.4 Distribution of scientific production by area of knowledge

Figure 5 shows the production of scientific publications distributed according to the area of knowledge through which the different research methodologies are executed.

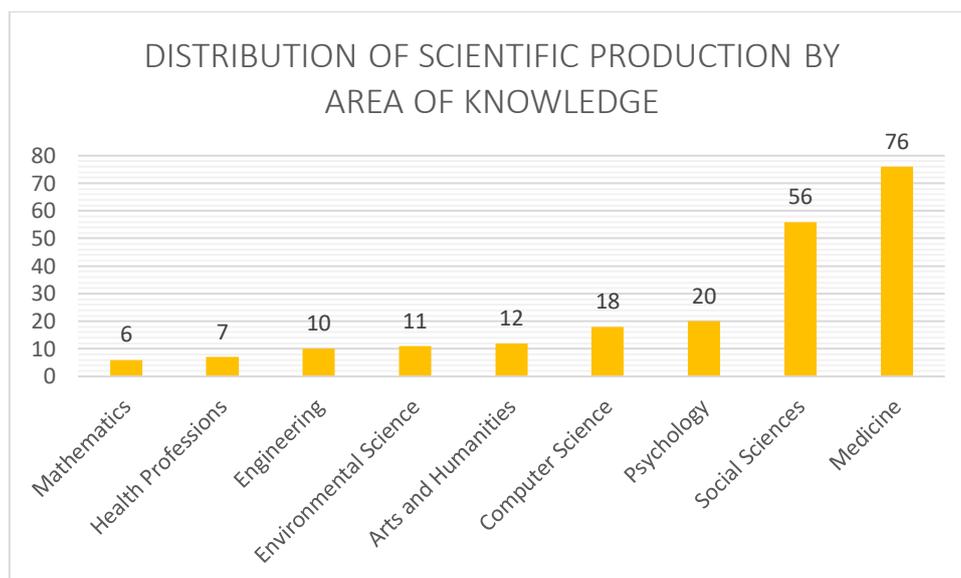


Figure 5. Distribution of scientific production by country of origin.

Source: Own elaboration (2021); based on data provided by Scopus.

As shown in Figure 5, the area of medicine is the one with the highest scientific production about the return to school within the framework of COVID, with 76 registered publications, among which stands out the one called “*Children are back to school, but is the game still closed? Play experiences, social interactions and quality of life of children in primary education during the covid-19 pandemic in 2020*” (Lourenço, Martins, Pereira, & Mendes, 2021). in which the research is aimed at determining the harmful effects that the lack of recreation and recreational facilities have on the lives of children in elementary schools during the pandemic, since these are crucial for the integral development of children and their education. The research, through a questionnaire applied to a group of 370 Portuguese children, showed that recreation is a fundamental element in the life of the child, which involves functional and emotional development, and also contributes to their psychological well-being and mental health. It is for this reason that schools worldwide, in the midst of the current situation, must safeguard these spaces.

4.5 Type of publication

Figure 6 shows how the bibliographic production is distributed according to the type of publication chosen by the authors.



Figure 6. Type of publication.

Source: Own elaboration (2021); based on data provided by Scopus.

Figure 6 shows that 75% of the publications identified through Phase 1 of the Methodological Design are journal articles within which is the title “*COVID-19 and youth sports: what are the risks of returning to the field too quickly?*” (Wang, Voort, Haus, & Carter, 2021). whose objective was focused on the identification of risk factors for injuries that could be contracted in young school athletes, due to sedentary lifestyles, which at the same time causes diseases such as obesity and affects mental health by creating depression and anxiety in them. The above in the context of the pandemic and the repercussions of isolation for this type of population that is dedicated to physical activity and that is prevented from developing by the limitations and state policies seeking to prevent the spread. It is important to take into account that the gradual return to school, the reactivation of the physical activity of these athletes carries considerable risks in their physiognomy (skeletal immature), which makes them susceptible to severe injuries. It is significant that through the study of this debit the risks to this population are identified and also in the conservation of the minimum measures to prevent the spread of the COVID-19 virus in the first place. On the other hand, it is identified that from the phase I of data collection of the methodological design of the present article, there are also Conference Articles in 8%, Editorials in 5% of the total of

publications and Reviews in 4% of the total of registered publications and object of research.

5. Conclusions

Through the bibliometric analysis made in this research, it can be determined that the United States is the country with the most publications registered worldwide in relation to the variable Back to School in the framework of COVID-19 with a total of 42 documents in Scopus, followed by countries such as China and the United Kingdom. Likewise, it is a fact that the scientific production about Back to School in the framework of COVID-19 obtained a considerable growth of almost double the number of publications, with 58 in the year 2020 and 111 in the year 2021, data that allow inferring that the gradual return of schools and different educational institutions in the world have meant enormous challenges concerning the different problems of each country, whether in technology issues, preparation from the makers and collaborators of education, to the same health emergency that emanates from the pandemic.

One of the clear challenges in the Return to Class in the midst of this pandemic is the humanization of education, which was affected by isolation and contagion measures; virtualization produced in many of the student

population worldwide severe damage in the psychological environment, mental health and socio-affective environment of those involved. The implementation of methodologies that generate a balance in students that counteract the negative aspects generated by the abrupt changes in the teaching processes and also reinforce the pedagogical discoveries originated because of COVID-19 becomes preponderant. It is vital that all the research and bibliographic resources produced in this research be known by all the actors in education, in order to solve the gaps and inequalities caused by digital illiteracy and even more important, the creation of spaces that generate functional development in the mental health of students. The return to class must institute a fight against social gaps in populations that do not have digital tools and the establishment of natural spaces that generate healthy environments for education worldwide.

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