

Back to school in the framework of COVID-19: a review for Latin America

Liliana Margarita Meza Cueto

Corporación Universitaria del Caribe-CECAR. Colombia

liliana.mezac@cecar.edu.co

<https://orcid.org/0000-0003-0860-7512>

Cristian Fernan Muñoz

cristianfernand@hotmail.com

Corporación Universitaria Minuto de Dios – UNIMINUTO. Colombia

<https://orcid.org/0000-0001-5164-0014>

Poma Cora Deysi Melisa

deysi.poma@unh.edu.pe

Universidad Nacional de Huancavelica, Perú.

<https://orcid.org/0000-0003-4885-3435>

Yeni Yauri Huiza

yyaurih@gmail.com

Universidad Nacional de Huancavelica, Perú.

<https://orcid.org/0000-0001-6935-4817>

Molina-Azpeitia M. J.

Centro Nacional de Actualización Docente. México

jovancamolina@gmail.com

Marco Tulio Falconi Picardo

Universidad Católica de Santa María de Arequipa, Perú

mfalconi@ucsm.edu.pe

<https://orcid.org/0000-0001-5062-6464>

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 framework of COVID-19. The purpose of the bibliometric analysis proposed in this document is to know 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 80 publications in total. 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 Brazil, with 46 publications, is the Latin American 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 social sciences with 21 published documents, and the type of publication that was most used during the above-mentioned period was the journal article, which represents 83% of the total scientific production.

Keywords: back to school, COVID-19.

1. Introduction

During 3 semesters, due to the COVID-19 contingency, educational processes depended on the student's family environment and their knowledge of ICTs, which in vulnerable communities, such

as in some parts of Latin America, led to school dropout, so strategies are proposed for a Back to School program to counteract the negative aspects of mediated education and return to the classroom to acquire knowledge through presence and experimentation (Núñez, y otros, 2021). Therefore, the cessation of academic activities in 2020 was an unprecedented event that forced educational institutions to an accelerated transition to virtual education and in some countries this measure was extended for more than a year, so that by different studies it was determined that students learned less in distance education than what they would have learned in face-to-face classes and it is estimated that learning would have a delay of up to two years of studies according to the World Bank (Dobarganes, 2021).

These preventive measures due to COVID-19 also affected the psychological wellbeing of students, thus the need to allocate resources for mental health services to treat the affectations that may be generated due to isolation (Babativa, 2021). Therefore, the Back to School means an improvement both in the pedagogical processes and in the mental health of students and teachers, thus improving the quality of life and helping to optimize the methodology used in the midst of the pandemic. Therefore, it is important to know through bibliographic resources the measures adopted for the Back to School in the framework of COVID-19, for which 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 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 from a bibliometric and bibliographic perspective.

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 study area mentioned above, from a bibliographic approach to describe the position of different authors regarding the proposed topic.

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

3.1 Methodological design

Table 1. Methodological design.

	PHASE	DESCRIPTION	CLASSIFICATION
PHASE 1	DATA COLLECTION	Data was collected using the Scopus web page search tool, through which a total of 80 publications were identified.	Published papers whose study variables are related to Back to School within the framework of COVID-19. Research papers published during the period 2020-2021.

			Limited to Latin American countries. Without distinction of area of knowledge. Without distinction of type of publication.
PHASE 2	CONSTRUCTION OF ANALYSIS MATERIAL	The information identified in the previous phase is organized. The classification will be made by means of figures and tables based on data provided by Scopus.	Word Co-occurrence. Year of publication Country of origin of the publication. Area of knowledge. Type of publication
PHASE 3	DRAFTING OF CONCLUSIONS AND FINAL DOCUMENT	After the analysis carried out in the previous phase, the conclusions are drawn up and the final document is prepared.	

Source: Own elaboration.

4. Results

4.1 Co-occurrence of words

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

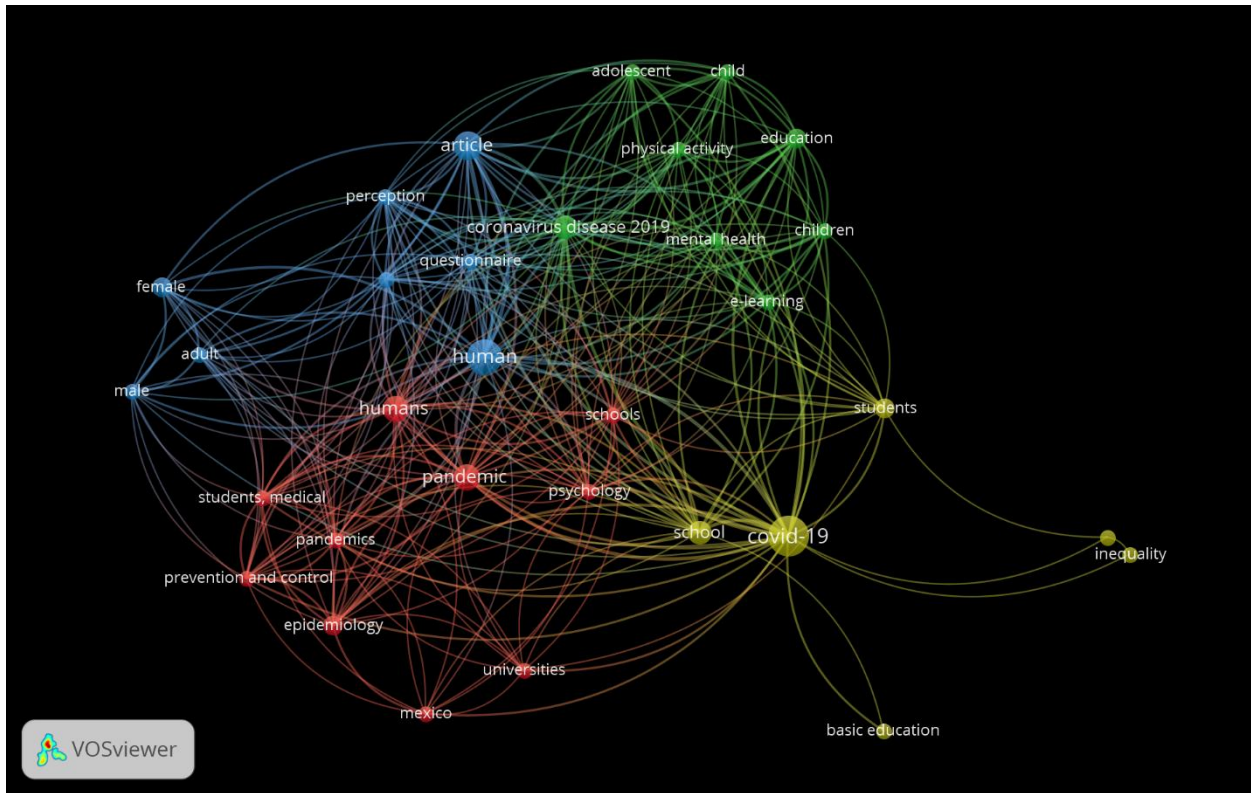


Figure 1. Co-occurrence of words

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

Figure 1 shows the most used keywords COVID-19, pandemic and basic education, which are related to the variables used in this research as they deal with educational aspects in times of COVID-19 and the transition to hybrid models that allow the return to face-to-face classes combined with online education classes, taking into account that we are still in the midst of a pandemic and the risk of contagion is still latent if the pertinent preventive measures are not taken. On the other hand, in the human element we find key words such as mental health, pandemic, adolescents, prevention and control that reflect the importance of psychological and physical well-being in changing our interactions as a community and in the educational modalities by understanding the social impact caused by the health emergency due to COVID-19 and how this modified the way we relate and affected the way of imparting knowledge by having to adapt quickly to new technological tools to access education, and how it is now necessary to go back to school to compensate for the negative aspects of the pandemic in the pedagogical processes. In the graph we also observe key words such as inequality, schools, students, among others that reflect the technological gaps that some communities have to access online education, so that the Back to School is a good alternative for everyone to access a quality education.

4.2 Distribution of scientific production by year of publication.

Figure 2 shows how the scientific production is distributed according to the year of publication, taking into account that the period between 2020 and the first semester of 2021 is taken.

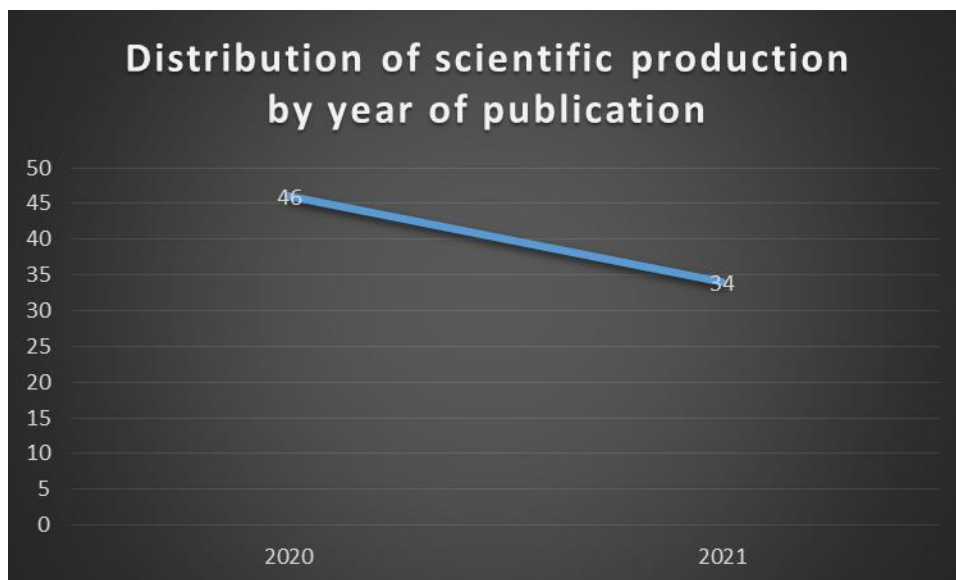


Figure 2. Distribution of scientific production by year of publication.
Source: Own elaboration (2021); based on data provided by Scopus.

Figure 2 shows how 2020 is the year with the most publications in the variable of Return to classes under COVID-19 with a total of 46 publications recorded among which is "*Perception of interns on the suspension of the medical internship during quarantine by COVID-19*" (Albitres-Flores et al., 2020) where it presents the opinion of a group of medical students regarding the cessation of academic activities and the suspension of their internships because of the COVID-19 crisis and raise the conditions that should be given for the return to face-to-face academic activities, as a result 54, As a result, 54.9% agreed to return to classes and to continue their internships if compliance with biosafety measures is guaranteed. 34 publications were registered in 2021, which is a good number considering that only the publications of the first semester of the current year are taken into account. Among them is "*Debate on the return to face-to-face classes in pandemics*" (Correa Del Río et al., 2021) in which a group of health professionals analyze from different perspectives the responsibilities that should be taken for the changes that the return to face-to-face classes entails. They analyze the physical, psychological and educational repercussions of returning to the classroom; they also analyze the positive aspects of academic education when returning to traditional education methods. They conclude that plans for an effective return to classes must be adapted to the reality of each community depending on the needs they present, adopting a social responsibility, being aware that there is still a certain risk of contagion that could affect the health of the community.

4.3 Distribution of scientific production by country of origin.

Figure 3 shows how scientific production is distributed according to the nationality of the authors.

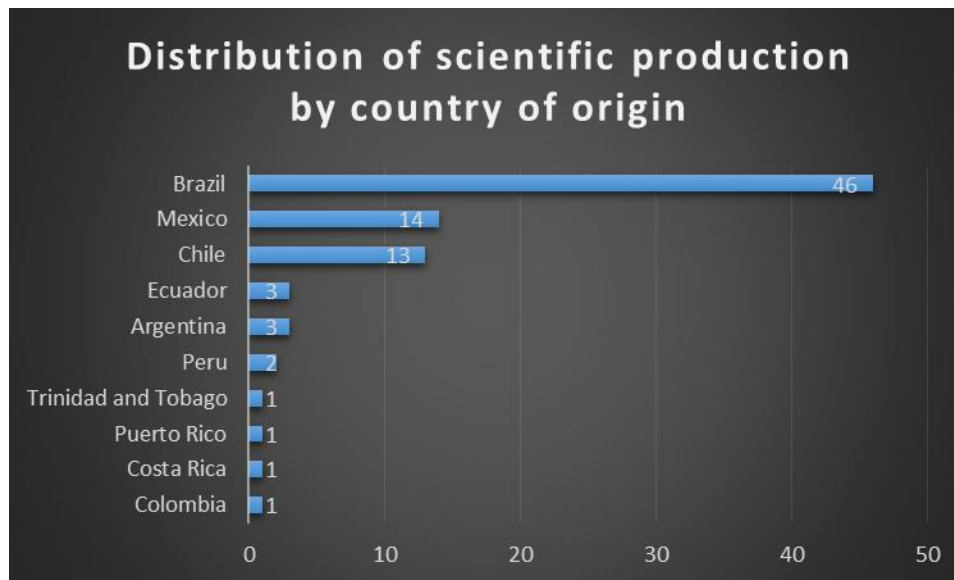


Figure 3. Distribution of scientific production by country of origin.

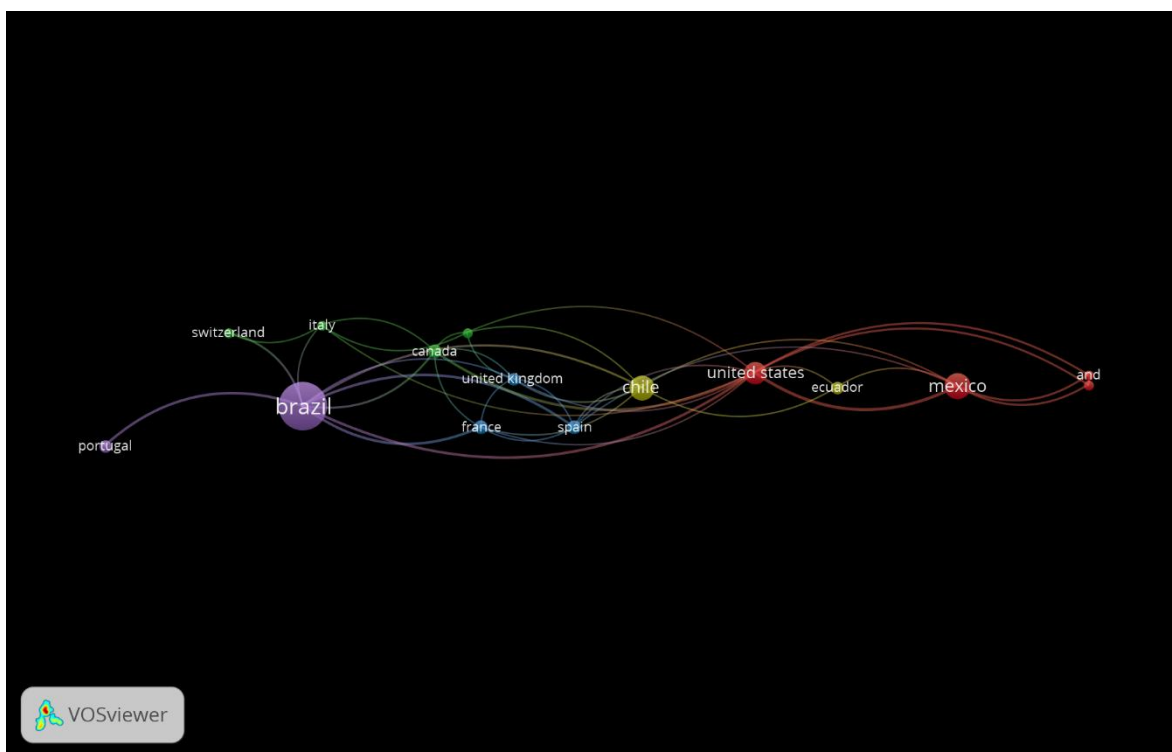
Source: Prepared by authors (2021); based on data provided by Scopus.

Brazil is the Latin American country with the highest number of bibliographic records published in high impact journals indexed in the Scopus database during the period 2020-2021 with a total of 46 documents among which we find "*Return to classes impact on the mental health of university students during the COVID-19 pandemic*" (Seffrin et al., 2021) where they conduct an investigation with 40 students through surveys about how the contingency measures adopted due to COVID-19 affected their mental health and as a consequence the cessation of face-to-face classes. In this article they study how the improvement in psychological well-being is connected with the return to classes, even non-face-to-face, after going through the strict quarantine imposed in Latin America at the beginning of 2020. As a result, this study concluded that depression symptoms in university students decreased in the return to classes but anxiety symptoms remained, so this research considers future studies to determine if the change in symptoms remains over time. The second country with the most publications is Mexico with a total of 14, followed by Chile with 13, Ecuador and Argentina with 3, Peru with 2 and Trinidad and Tobago, Puerto Rico, Costa Rica and Colombia with 1 publication each.

At this point, it is worth noting 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 public and private institutions, and these institutions can be from the same country or from different nationalities, so that the production of an article with co-authorship of different authors from different countries of origin allows each of the countries to add up as a unit in the general 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 Brazil as the Latin American country with the most publications registered on Back to School in the framework of COVID-19 with authors affiliated to institutions in countries such as the United States, Spain, United Kingdom, France, Italy and Portugal, thus showing that not only publications by Latin American authors are shown. The second country with the largest number of publications registered during the year 2020 and the first semester of 2021 is Mexico, which mainly presents publications with the United States, Spain and Chile; among these publications is "How the COVID-19 contingency affects children" (Reséndiz-Aparicio, 2021), in which a group of parents was selected as the population and through surveys it was determined how they perceived the effects of the COVID-19 contingency on their children. This study showed that 77.8% of parents consider that distance education does not guarantee the education of children and that the level of learning acquired through online classes is not the same as that of face-to-face education (83.5%). Among the positive aspects of the contingency, adaptability was reported (35%) which would facilitate the implementation of relevant changes in methodologies to ensure quality

education. Therefore, through this research, we can determine the importance of the return to on-site classes in the optimization of educational models that ensure both the optimal pedagogical procedure and the compliance with biosecurity measures to avoid contagions and alterations to public health. Chile is also shown as one of the countries with the greatest collaboration with affiliated authors from outside Latin America, such as Germany, France and the United Kingdom.

4.4 Distribution of scientific production by area of knowledge

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

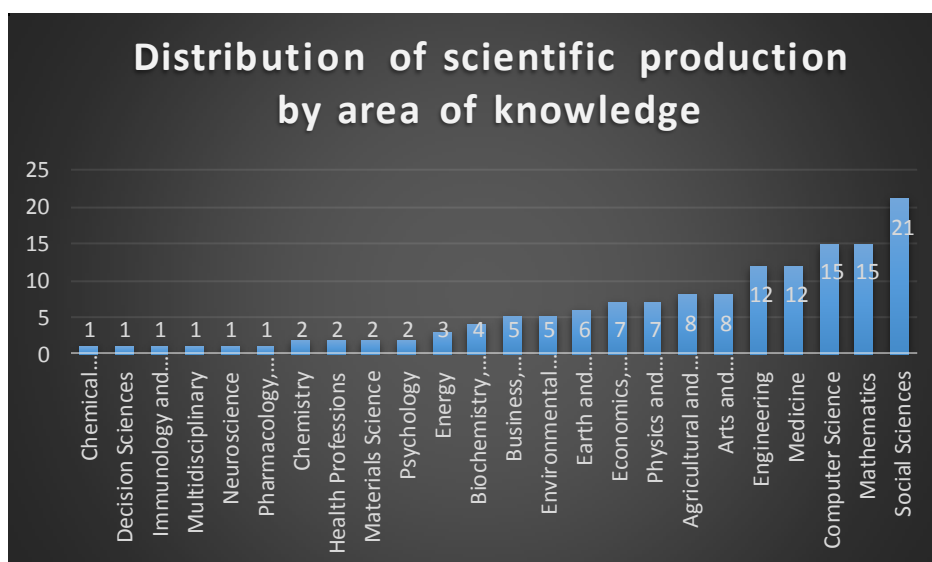


Figure 5. Distribution of scientific production by country of origin.

Source: Prepared by authors (2021); based on data provided by Scopus.

Social sciences is the area of knowledge with the most publications registered in relation to the variable Back to class in the framework of COVID-19 with a total of 21, among which is "*Back to class: Between face-to-face teaching and distance education, new trends*" (Almeida et al., 2021). This research analyzes the challenges that teachers face about distance and face-to-face learning and the trends that these present after the COVID-19 pandemic, and was conducted in elementary schools in Rio Grande Do Suli in Brazil by means of a qualitative methodology. This research concluded that the contingency due to COVID-19 modified and accelerated educational innovation in basic education schools by changing teaching and learning methods, resulting in new needs such as digital literacy of teachers, students and family members so that hybrid education could become a reality. In second place is mathematics with 15 papers, followed by computer science with 15 and medicine and engineering with 15 publications.

Economics is in the ninth position with a total of 7 publications among which is identified "*Educational public policies during the pandemic: Comparative study Mexico and Ecuador*" (Torres-Toukomidis et al., 2021). This study analyzes and compares the public and economic policies taken by Mexico and Ecuador in the field of education where a total of 60 documents are studied regarding the measures adopted in both countries to avoid a major impact on the way in which education is provided. They concluded that although Ecuador's social competencies are oriented to administrative personnel, students, families and teachers in Mexico, in addition to those

mentioned, these also include the media and government employees of the Ministry of Public Education.

4.5 Type of publication

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

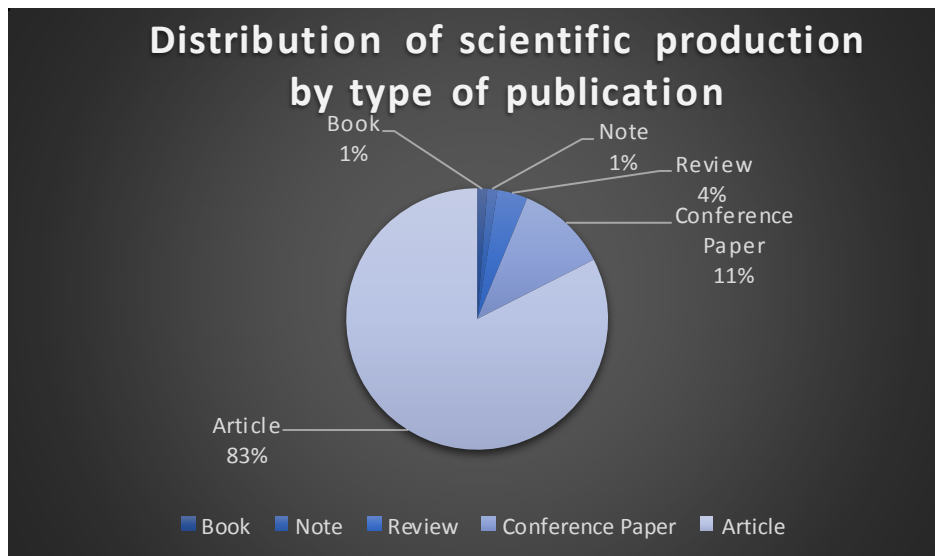


Figure 6. Type of publication

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

Within the different types of publications, we find in Graph 6 that 83% of the publications identified through Phase 1 of the Methodological Design are journal articles within which "*Effects and consequences of COVID-19 for higher education in Mexico*" (Domínguez-Vergara & Dominguez-Perez, 2021) is identified. This study conducted at the Autonomous University of Mexico documents the effects of the COVID-19 crisis in higher education, analyzes the accelerated process of change in teaching methodology and the use of technological tools for online education; as well as the new labor relations and modified school calendars due to the cessation of classes due to the quarantine adopted by most countries at the beginning of 2020. More than a third of the students consider that online learning has been minimal or nonexistent, 20% of their students did not take online classes and 10% of their professors did not teach online. Therefore, this paper discusses several negative effects of online classes due to COVID-19 and offers recommendations to higher education institutions in the Back-to-School period.

In second place is conference proceedings with 11% of the publications, in them, researchers found "*Investigating the situation of Brazilian undergraduate students during the COVID-19 pandemic*" (Dantas et al., 2021) where they analyze how higher education in Brazil changed due to the health emergency and how undergraduate students were affected by the suspension of classes. Through surveys they were able to obtain information about how students adopted these measures and how technologically prepared they were to return to remote classes and their readiness for face-to-face Back to School. Figure 6 also shows that reviews represent 4% of the publications and notes and

books represent 1% of the total number of documents registered in Scopus related to the variable Back to School in the framework of COVID-19.

5. Conclusions

By means of the bibliometric analysis made in this research, it can be determined that Brazil is the Latin American country with the most publications registered in relation to the variable Back to School in the framework of COVID-19 with a total of 46 documents in Scopus followed by Mexico, Chile and Ecuador. Since it is a very recent topic, the publications of the year 2020 and the first period of 2021 were considered, so an increase was noted in the number of documents if it is considered that there will be more publications in the second semester of the current year, which indicates the importance of research on Back to School and the adaptation of hybrid educational models that help innovation and educational transformation in a satisfactory way.

One of the most important aspects identified in Back to School is the reduction of the digital divide, considering that this study was directed to Latin America which is a vulnerable population and with a high percentage of digital illiteracy where some communities do not have access to the necessary technological tools to access online education, which causes an increase in school dropout. Therefore, the Back-to-School program is ideal to improve the methodologies used in traditional educational models and online education, using them as complementary methods to ensure quality education for all students. It is also important to cover the impact of the COVID-19 crisis on the mental health of students and as previously mentioned studies show that the Back to School, even virtual, helps to counteract the negative aspects in the psychological well-being in addition to repairing the damage caused by the accelerated change to distance education in the pedagogical processes. Therefore, it is important to consider researches that make known the bibliographic resources that allow to know the measures and public policies in educational matters adopted by the governments for a correct Back to School to help students receive an optimal education and provide the reader with several perspectives about the hybrid educational models implemented in Latin America.

References

- Albitres-Flores, L., Pisfil-Farroñay, Y., Guillen-Macedo, K., Niño-García, R., & Alarcon-Ruiz, C. (2020). quarantine, Interns' perceptions about the medical internship suspension during the COVID-19. *Revista Peruana de Medicina Experimental y Salud Publica*, 504 - 509.
- Almeida, P., Jung, H., & Silva, L. (2021). Return to class: Between presential teaching and distance education, new trends. *Praksis*, 96 - 112.
- Babativa, L. (2021). Salud Mental en Niños y Adolescentes Relacionado a la Cuarentena Ocasionada por COVID-19.
- Correa Del Río, A., Sepúlveda, M. M., Burón, K. V., Salinas, A. P., & Cavagnaro, S. (2021). Debate on the return to face-to-face classes in pandemic. *Andes Pediatrica*, 174 - 181.
- Dantas, V., Isac, C., Souza, C., Ferreira, A., & Peixoto, A. (2021). Investigating the situation of Brazilian undergraduate students during the COVID-19 pandemic. *2021 IEEE Global Engineering Education Conference, EDUCON 2021*, (págs. 941 - 945). Vienna.
- Dobarganes, P. C. (2021). Educación en pandemia: los riesgos de las clases a distancia.
- Domínguez-Vergara, N., & Domínguez-Perez, D. (2021). Effects and consequences of COVID-19 to higher education in Mexico. *Journal of Higher Education Theory and Practice*, 58 - 68.
- Núñez, J. M.-L., de Jesús Rodríguez-Fernández, A., Jiménez-Ortega, A. D., Quiroz-Cazares, G., Balderas-Cruz, I., & Seemann-Carús, S. (2021). Análisis territorial de las condiciones de la

- educación básica en México ante el regreso a clases presenciales en el marco del COVID-19.
- Reséndiz-Aparicio, J. (2021). How the COVID-19 contingency affects children. *Boletín Médico del Hospital Infantil de México*, 216 - 224.
- Seffrin, A., Puccinelli, P., Vivan, L., Vancini, R., De Lira, C., Nikolaidis, P., . . . M.S., A. (2021). Return to classes impact on mental health of university students during the COVID-19 pandemic. *Acta Neuropsychiatrica*.
- Torres-Toukourmidis, A., González-Moreno, S., Pesántez-Avilés, F., Cárdenas-Tapia, J., & Valles-Baca, H. (2021). Educational public policy during the pandemic: Comparative study of Mexico and Ecuador. *Education Policy Analysis Archives*.
- Albitres-Flores, L., Pisfil-Farroñay, Y. A., Guillen-Macedo, K., Niño-García, R., & Alarcon-Ruiz, C. A. (2020). Interns' perceptions about the medical internship suspension during the COVID-19 quarantine. [Percepción de los internos sobre la suspensión del internado médico durante la cuarentena por la COVID-19] *Revista Peruana De Medicina Experimental y Salud Publica*, 37(3), 504-509. doi:10.17843/rpmesp.2020.373.5729
- Almeida, C., Ardison, K., & Garcia, R. (2020). Nonparametric assessment of hedge fund performance. *Journal of Econometrics*, 214(2), 349-378. doi:10.1016/j.jeconom.2019.08.002
- Almeida, C., & Freire, G. (2021). Pricing of index options in incomplete markets. *Journal of Financial Economics*, doi:10.1016/j.jfineco.2021.05.041
- Almeida, P. R., Jung, H. S., & Silva, L. Q. (2021). Return to class: Between presential teaching and distance education, new trends. [Retorno as aulas: entre o ensino presencial e o ensino a distancia, novas tendencias] *Praksis*, 3, 96-112. doi:10.25112/RPR.V3.2556
- Cipriani, F. M., Moreira, A. F. B., & Carius, A. C. (2021). Teaching performance on educação básica in pandemic time. [Atuação docente na educação básica em tempo de pandemia.] *Educacao and Realidade*, 46(2) doi:10.1590/2175-6236105199
- Correa Del Río, A., González L., I., Sepúlveda M., M., Burón K., V., Salinas A., P., & Cavagnaro Sm., F. (2021). Debate on the return to face-to-face classes in pandemic. [Debate sobre el retorno a clases presenciales en pandemia] *Andes Pediatrica*, 92(2), 174-181. doi:10.32641/andespediatr.v92i2.3535
- Cristiano, R., Pagano, D. J., Tonon, D. J., & Carvalho, T. (2020). Fold bifurcation of T-singularities and invariant manifolds in 3D piecewise-smooth dynamical systems. *Physica D: Nonlinear Phenomena*, 403 doi:10.1016/j.physd.2019.132293
- da Cruz, P. R. C., Filho, A. C. D., Santana, V. B. B. M., Boaretto, R. B. B., & Riccetto, C. L. Z. (2020). Donor age amplifies the detrimental effects of cold ischemia time on long-term kidney allograft survival independently of the occurrence of delayed graft function or early acute rejection. *Experimental and Clinical Transplantation*, 18(4), 436-443. doi:10.6002/ect.2020.0066

da Silva, L. J. P., & Rosalem, V. (2020). Technical deviations that generate medicines return: In the distributor in the southeast of goiás. [Desvios técnicos que geram devolução de medicamentos: Em distribuidora no sudeste goiano] *Gestao e Producao*, 27(1) doi:10.1590/0104-530X3564-20

de Oliveira, R. C., Quintão Lana, R. M., Queiroz Luz, J. M., Queiroz, A. A., & Bertoldo, D. L. (2020). Biofertilizer in leaf and drip applications: An alternative to increase tomato productivity. *Comunicata Scientiae*, 11 doi:10.14295/cs.v11i0.3376

Domínguez-Vergara, N., & Dominguez-Perez, D. N. (2021). Effects and consequences of COVID-19 to higher education in mexico. *Journal of Higher Education Theory and Practice*, 21(3), 58-68. doi:10.33423/JHETP.V21I3.4142

dos Santos, C., dos Santos, L. S., & Franco, O. L. (2021). Fosfomycin and nitrofurantoin: Classic antibiotics and perspectives. *Journal of Antibiotics*, 74(9), 547-558. doi:10.1038/s41429-021-00444-z

Duarte, L. L., & Menna-Barreto, L. (2021). Chronotypes and circadian rhythms in university students. *Biological Rhythm Research*, doi:10.1080/09291016.2021.1903791

Ducha, F. A., Atman, A. P. F., & Bosco de Magalhães, A. R. (2021). Information flux in complex networks: Path to stylized facts. *Physica A: Statistical Mechanics and its Applications*, 566 doi:10.1016/j.physa.2020.125638

Escamilla-García, P. E., Camarillo-López, R. H., Carrasco-Hernández, R., Fernández-Rodríguez, E., & Legal-Hernández, J. M. (2020). Technical and economic analysis of energy generation from waste incineration in mexico. *Energy Strategy Reviews*, 31 doi:10.1016/j.esr.2020.100542

Farias Dantas, V., Isac, C., Souza, C., & Peixoto, A. (2020). Assessing students' feelings during COVID-19 pandemic situation in brazil: A case study in paraiba inland. Paper presented at the ACM International Conference Proceeding Series, 611-616. doi:10.1145/3434780.3436666 Retrieved from www.scopus.com

Feliú, G., Pagano, M., Hidalgo, P., & Carlotti, F. (2020). Structure and function of epipelagic mesozooplankton and their response to dust deposition events during the spring PEACETIME cruise in the mediterranean sea. *Biogeosciences*, 17(21), 5417-5441. doi:10.5194/bg-17-5417-2020

Fernandez, L., & Prakash, R. (2021). Imaging of small penetrable obstacles based on the topological derivative method. *Engineering Computations (Swansea, Wales)*, doi:10.1108/EC-12-2020-0728

Figueiró, C. G., de Cássia Oliveira Carneiro, A., de Freitas Fialho, L., de Magalhães, M. A., de Deus Ribeiro, G. B., & Ferreira, F. B. (2020). Wood dryers: A sustainable alternative for increased charcoal production. *Floresta*, 50(1), 943-952. doi:10.5380/ufv50i1.59355 Hernández-Hernández, A. M., & Huerta-Quintanilla, R. (2021). Managing school interaction networks during the COVID-

19 pandemic: Agent-based modeling for evaluating possible scenarios when students go back to classrooms. PLoS ONE, 16(8 August) doi:10.1371/journal.pone.0256363

Hilary, B., Chris, B., North, B. E., Angelica Maria, A. Z., Sandra Lucia, A. Z., Carlos Alberto, Q. G., . . . Andrew, W. (2021). Riparian buffer length is more influential than width on river water quality: A case study in southern costa rica. *Journal of Environmental Management*, 286 doi:10.1016/j.jenvman.2021.112132

Huber, D. H., Chavarria-Palma, J. E., & Espinosa-Solares, T. (2021). Co-digestion of dairy cattle waste in a pilot-scale thermophilic digester adapted to poultry litter feedstock: Stress, recovery, and microbiome response. *Bioenergy Research*, doi:10.1007/s12155-020-10233-5

Izquierdo, Y. T., García, G. M., Menendez, E., Leme, L. A. P. P., Neves, A., Lemos, M., . . . Casanova, M. A. (2021). Keyword search over schema-less RDF datasets by SPARQL query compilation. *Information Systems*, 102 doi:10.1016/j.is.2021.101814

Jerez, T., & Kristjanpoller, W. (2020). Effects of the validation set on stock returns forecasting. *Expert Systems with Applications*, 150 doi:10.1016/j.eswa.2020.113271

Junior, M. A., Filipe, J. A., da Silva, C. D. C., & Neto, P. M. J. (2021). Assessing the time-frequency co-movements among the five largest engineering consulting companies: A wavelet-base metrics of contagion and var ratio. *Mathematics*, 9(5), 1-16. doi:10.3390/math9050504

Júnior, V. A. S., Júnior, A. F. S., Simões, T. A., & Oliveira, G. P. (2021). Poiseuille-number-based Kozeny–Carman model for computation of pore shape factors on arbitrary cross sections. *Transport in Porous Media*, 138(1), 99-131. doi:10.1007/s11242-021-01592-4

Lefu, N., & Lorig, L. (2020). Slope stability assessment and slope optimization at letšeng diamond mine, lesotho. Paper presented at the Rock Mechanics for Natural Resources and Infrastructure Development- Proceedings of the 14th International Congress on Rock Mechanics and Rock Engineering, ISRM 2019, 3498-3505. Retrieved from www.scopus.com

Llibre, J., & de Menezes, L. A. S. (2020). On the limit cycles of a class of discontinuous piecewise linear differential systems. *Discrete and Continuous Dynamical Systems - Series B*, 25(5), 1835-1858. doi:10.3934/dcdsb.2020005

López, F., & Walker, E. (2021). Investment performance, regulation and incentives: The case of chilean pension funds. *Journal of Pension Economics and Finance*, 20(1), 125-150. doi:10.1017/S1474747219000350

Marques, E. (2021). Notes on social conditions, rights and violence in brazilian cities. *Journal of Iberian and Latin American Research*, doi:10.1080/13260219.2021.1954796

Matzenauer, M., Reiser, R., Santos, H., Pinheiro, J., & Bedregal, B. (2020). An initial study on typical hesitant (t,n)-implication functions doi:10.1007/978-3-030-50143-3_58 Retrieved from www.scopus.com

Menezes Lima, J. A., Correa Magalhães Filho, F. J., Constantino, M., & Formagini, E. L. (2020). Techno-economic and performance evaluation of energy production by anaerobic digestion in brazil: Bovine, swine and poultry slaughterhouse effluents. *Journal of Cleaner Production*, 277 doi:10.1016/j.jclepro.2020.123332

Mozaffari, M. R., Dadkhah, F., Jablonsky, J., & Wanke, P. F. (2020). Finding efficient surfaces in DEA-R models. *Applied Mathematics and Computation*, 386 doi:10.1016/j.amc.2020.125497

Muñoz, O. C. (2021). Birth and formation of a chronicler: Joaquín Edwards bello and his incorporation to the literary field. [Nacimiento y formación de un cronista: Joaquín Edwards Bello y su incorporación al campo literario] *Literatura y Linguística*, (43), 171-202. doi:10.29344/0717621X.43.2485

Nattiv, A., De Souza, M. J., Koltun, K. J., Misra, M., Kussman, A., Williams, N. I., . . . Fredericson, M. (2021). The male athlete triad-A consensus statement from the female and male athlete triad coalition part 1: Definition and scientific basis. *Clinical Journal of Sport Medicine : Official Journal of the Canadian Academy of Sport Medicine*, 31(4), 335-348. doi:10.1097/JSM.0000000000000946

Negro, A. L. (2020). Black colors of slavery not to be seen: Race, class and nation on miguel calmon's journey to asian plantations (1905). [Negras cores de escravidão para não se ver: Raça, classe e nação na viagem de Miguel Calmon a plantações asiáticas (1905)] *Varia Historia*, 36(72), 781-813. doi:10.1590/0104-87752020000300008

Neto, J. H. D. N., de Holanda, A. C., & de Abreu, J. C. (2020). Assessing the feasibility of the BDq method for the sustainable management of the caatinga. [Uso do método BDq em uma área de caatinga submetida ao manejo florestal] *Revista Caatinga*, 33(3), 746-756. doi:10.1590/1983-21252020v33n318rc

Neto, O. M., Silva, P. H. M., Barberini, R. R., & Lima, R. M. (2020). Class dissatisfaction and intelligibility of PBL. Paper presented at the International Symposium on Project Approaches in Engineering Education, , 10 391-397. Retrieved from www.scopus.com

Oliveira, M. A., Lino-Alvarado, A. E., Moriya, H. T., & Vitorasso, R. L. (2021). Drug class effects on respiratory mechanics in animal models: Access and applications. *Experimental Biology and Medicine*, 246(9), 1094-1103. doi:10.1177/1535370221993095

Reple, A., Chierigati, A. C., Valery, W., & Prati, F. (2020). Bulk ore sorting cut-off estimation methodology: Phu kham mine case study. *Minerals Engineering*, 149 doi:10.1016/j.mineng.2018.08.006

Reséndiz-Aparicio, J. C. (2021). How the COVID-19 contingency affects children. [Cómo afecta a los niños la contingencia por COVID-19] *Boletín Médico Del Hospital Infantil De México*, 78(3), 216-224. doi:10.24875/BMHIM.20000140

Retamal, I. G., Pino-Fan, L. R., & Arredondo, E. H. (2020). Didactical paradoxes observed in the management of euclid's theorems. [Paradojas Didácticas Observadas en la Gestión de los Teoremas de Euclides] *Bolema - Mathematics Education Bulletin*, 34(67), 651-677. doi:10.1590/1980-4415v34n67a15

Rosales, C. K., Erazo, P. V., Valderrama, J. F., González, J. B., Terneus, D. H., Stagno, R. U., . . . Contreras, L. V. (2020). Sport COVID-19 orientations: Recommendations for return to physical activity and sports in children and adolescents. [Orientaciones deporte y COVID-19: Recomendaciones sobre el retorno a la actividad física y deportes de niños niñas y adolescentes] *Revista Chilena De Pediatría*, 91(7), 1-16. doi:10.32641/rchped.vi91i7.2782

Ross, K. M., Oltman, S., Baer, R., Altman, M., Flowers, E., Feuer, S., . . . Jelliffe-Pawlowski, L. (2021). Socioeconomic status, diabetes, and gestation length in native american and white women. *Health Psychology : Official Journal of the Division of Health Psychology, American Psychological Association*, 40(6), 380-387. doi:10.1037/hea0001072

Russo, J. A., & Nucci, M. F. (2020). Giving birth in paradise: Humanized birth, oxytocin, and the bodily production of a new maternity. [Parindo no paraíso: Parto humanizado, ocitocina e a produção corporal de uma nova maternidade] *Interface: Communication, Health, Education*, 24 doi:10.1590/Interface.180390