Methodologies at Covid-19 era: a bibliometric analysis

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Introduction

COVID-19 virus spread from the beginning of 2020 and led to its classification as a pandemic virus by the World Health Organisation.

Due to the socio-sanitary decisions taken by all countries as a result of this situation, educational processes underwent a wide range of changes.

To facilitate the structural understanding of the different academic areas that link the aforementioned concepts, COVID-19 and education within the social sciences, the use of bibliometrics was proposed.
Objective

To give an overview of the current bibliographical situation of the production referred to the different educational methodologies that have been carried out during COVID-19. To this end, we aim to analyse the research present in the Scopus database, in which the terms “methodology”, “education” and “covid-19” are used, through a bibliometric study.
Methodology
Bibliographic collection

Collected from the Web of Science (WoS) Scopus database in June 2021.

Syntax:

\[(\text{TITLE-ABS-KEY (covid)} \text{ AND TITLE-ABS-KEY (education)} \text{ AND TITLE-ABS-KEY (methodology)})\]

The collection was **973 documents**, dated between 2019 and 2021.
Analysis

Cluster Analysis

Compares references in each document and, when they match, “links” the documents together. The degree of linkage can be calculated based on whether they share the same reference.

Conceptual Analysis

Evaluate the relationships between the keywords of the document.
Results
Cluster Analysis

- COVID-19: 40.5%
- Higher Education: 43.3%
- E-learning: 73.3%
- Distance Learning: 66.7%
- Pandemic: 36.4%

- COVID-19: 25.4%
- Higher Education: 30%
- Online Learning: 35.7%
- Distance Education: 66.7%
- Pandemic: 18.2%

- COVID-19: 34.1%
- Pandemic: 45.5%
- Education: 53.3%
- Higher Education: 26.7%
- Blended Learning: 75%
Conceptual Analysis

Niche Themes
- telemedicine
- medical education & training
- telehealth

Motor Themes
- teaching
- communication
- well-being

Development Degree (Density)
- mobile learning
- augmented reality
- digitization
- learning
- innovation
- health

Relevance Degree (Centrality)
- covid-pandemic
- online education
- distance education
- higher education pandemic
- lockdown

Emerging or Declining Themes
- e-learning
- online teaching
- blended learning

Basic Themes
Conclusions
Conclusions

According to Cluster Analysis:

The themes revealed by the bibliographic matching generated with the keywords of the documents show that the majority of the research was focused on distance learning, with all its variants.

According to Conceptual Analysis:

Several nodes of interest to the scientific community can be detected. The themes underlying the publication are focused on distance learning, as expected, but the driving themes seem to be centred on people's well-being and communicative processes. Publishing niches related to health domains are also spotted, probably because of advances and methodological changes in consultations and reviews via phone and video calls.
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