

## Chapter 14

# COVID–19 Pandemic Effects on Brazilian Postgraduate Research: An Exploratory Study at Two Federal Institute Programmes

**Andre Fernando Uébe-Mansur**

 <https://orcid.org/0000-0003-1909-7300>

*Federal Fluminense Institute, Brazil*

**Giselle Rôças**

*Federal Institute of Rio de Janeiro, Brazil*

**Eduardo dos Santos de Oliveira Braga**

*Federal Institute of Rio de Janeiro, Brazil*

**Neila Ferreira da Silva Jesus**

*Federal Fluminense Institute, Brazil*

**Lohaine Miguez Martins**

*Federal Fluminense Institute, Brazil*

## ABSTRACT

*The education area is being deeply affected by COVID-19, and Brazilian students are trying to adapt. This chapter aims to research how postgraduate students are dealing with the challenges of the pandemic. From the following research question, “How did COVID-19 impact different dimensions of students’ lives enrolled at master and doctorate programmes?” the chapter describes the challenges that students from Master and Doctorate programmes of two federal institutes are dealing with and the future perspectives in the context of the pandemic. The research methodology is based on an exploratory approach, grounded on a survey for data regarding the impacts of COVID-19 in three dimensions: private life, professional life, and academic life, aiming to understand if and how their research and educational products development were affected. The results show that, despite stress and efforts, the students could adapt their research for the pandemic situation.*

DOI: 10.4018/978-1-7998-8816-1.ch014

## **INTRODUCTION**

Contemporary society is suffering from disruptive changes in its various areas since the coronavirus outbreak in China (Hua et al., 2020), and the SARS-COV-2 pandemic (also called COVID-19 pandemic) was officially declared on 11th March 2020 by WHO (2020). To avoid the virus' dissemination, business, schools and other institutions from the entire world became a rampage lockdown. Nowadays, many people are compulsorily in their homes, avoiding agglomerations and often even without human contact (Kanungo & Sharma, 2021). For this reason, world education has been profoundly affected. An anonymous survey involving 3,000 Brazilians over 18 years old reported that among the participants, 46.4% of them showed depression symptoms, 39.7% anxiety, and 42.2% stress (Serafim et al., 2021). According to Usmani et al. (2021), nearly 90% of the world's student population is experiencing disruptive changes in their learning. For example, Hussain et al. (2021) reported that the COVID-19 pandemic promoted a world run to offer courses using online technology at High Education Institutions. This need provided an increase from 25% to 85% (meaning a 60% growth) of distance teaching classes. In Brazil, institutions at their different educational levels were in lockdown. From the complete classroom suspension right at the beginning of the pandemic to the distance emergency classes, there were many challenges to provide student academic and pedagogical assistance.

The Federal Network of Vocational Education (FNVE) is a huge public network of vocational education from the Brazilian government that promotes education from high school to the doctorate level, including 643 campuses around many Brazilian states. The Rio de Janeiro state FNVE offers 5 doctorate and 27 master programmes in different institutes developing research in many areas, and all of them have been disrupted by the COVID-19 pandemic. Within this scenario, the following question is set: "How did the COVID-19 outburst impact on different dimensions of the students' lives enrolled in master and doctorate programmes?". Prompted by this question, the present chapter aims to map, share and analyse how the COVID-19 pandemic has impacted the research in specific doctorate and master programmes of the two federal institutes of the Rio de Janeiro state, called Fluminense Federal Institute (IFF) and Federal Institute of Rio de Janeiro (IFRJ).

Federal institutes are institutions based on scientific and technological education. They offer courses in vocational secondary education, technologists, engineering, and teacher training. The current study arises from an initial reflection on how the pandemic affects two postgraduate programmes aimed at training trainers in the exact sciences, evidencing an intimate relationship between training courses with a scientific and technological bias and the research carried out.

The chapter is structured in seven sections. Following this first section, which presents the context and objectives of the study, the second section outlines the Federal Institutes (FI) general aspects, detailing characteristics of the two Rio de Janeiro state's institutes focused on this research. The third section presents the survey from master's and doctorate programmes' students from the two institutes. Two case studies from an IFF master student and an IFRJ doctorate student according to the described methodological stages are also presented. The fourth section discusses future research directions, followed by the last section, in which overall conclusions are presented.

21 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/covid-19-pandemic-effects-on-brazilian-postgraduate-research/293570](http://www.igi-global.com/chapter/covid-19-pandemic-effects-on-brazilian-postgraduate-research/293570)

## Related Content

---

### Implementing Computer Gaming Technology in Architectural Design Curricula: Testing Architecture with the Rich Intertwining of Real-Time Spatial, Material, Lighting and Physical Simulations

Russell Lowe (2012). *Computational Design Methods and Technologies: Applications in CAD, CAM and CAE Education* (pp. 199-224).

[www.irma-international.org/chapter/implementing-computer-gaming-technology-architectural/62949](http://www.irma-international.org/chapter/implementing-computer-gaming-technology-architectural/62949)

### Quality Accreditation System for Indian Engineering Education Using Knowledge Management and System Dynamics

Abdul Razak Honnutagi, Rajendra Sonarand Subash Babu (2012). *International Journal of Quality Assurance in Engineering and Technology Education* (pp. 47-61).

[www.irma-international.org/article/quality-accreditation-system-indian-engineering/69792](http://www.irma-international.org/article/quality-accreditation-system-indian-engineering/69792)

### Problem-Based Learning and Authentic Assessment as an Implementation of Outcomes-Based Education in the Computer Engineering Program of Ateneo de Davao University

Eufemia Fallerand Edicio Faller (2017). *International Journal of Quality Assurance in Engineering and Technology Education* (pp. 22-36).

[www.irma-international.org/article/problem-based-learning-and-authentic-assessment-as-an-implementation-of-outcomes-based-education-in-the-computer-engineering-program-of-ateneo-de-davao-university/221382](http://www.irma-international.org/article/problem-based-learning-and-authentic-assessment-as-an-implementation-of-outcomes-based-education-in-the-computer-engineering-program-of-ateneo-de-davao-university/221382)

### Applying a Coherent Academy Training Structure to Vertically Integrate Learning, Teaching and Personal Development in Materials Science and Engineering

Ian Mabbett (2015). *Handbook of Research on Recent Developments in Materials Science and Corrosion Engineering Education* (pp. 82-99).

[www.irma-international.org/chapter/applying-a-coherent-academy-training-structure-to-vertically-integrate-learning-teaching-and-personal-development-in-materials-science-and-engineering/127439](http://www.irma-international.org/chapter/applying-a-coherent-academy-training-structure-to-vertically-integrate-learning-teaching-and-personal-development-in-materials-science-and-engineering/127439)

### The Power of Leadership in Engineering Management Education

Zeyad Waleed Abualhamael (2021). *Cases on Engineering Management Education in Practice* (pp. 124-143).

[www.irma-international.org/chapter/the-power-of-leadership-in-engineering-management-education/265017](http://www.irma-international.org/chapter/the-power-of-leadership-in-engineering-management-education/265017)