

Editorial

Training, Education, and Research in COVID-19 Times: Innovative Methodological Approaches, Best Practices, and Case Studies

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1. Editorial

The recent pandemic of COVID-19 challenges the delivery of training and education worldwide. In parallel, research in the times of COVID-19 has become more demanding in terms of research methodologies and the delivery of sound scientific contributions. In this Special Issue, we analyze the diversified training, education, and research context in the times of the COVID-19 pandemic.

The preparedness of the educational systems for a rapid shift in the delivery mode of the training was challenged by the diverse aspects of the COVID-19 pandemic. Within this multifaceted context new innovative methodologies, frameworks and approaches seem to provide a bold response to the global need for timely, high-quality education, training, and research on a remote and distant basis [1–6].

The widespread nature of the phenomenon proved to initiate global actions and local strategies. Our special issue communicates not only different approaches but also communicates the key lessons learnt. We believe that the know-how and the best practices cultivated during the COVID-19 period will lead future interventions in similar circumstances. From this point of view, a continuous quest of resilience and sustainability in training and education is a great gain from the pandemic. On the other hand, the psychological aspects and the impact on the behavior of trainees and trainers, as well as academics and researchers, need to be analyzed further. The short-, medium-, and long-term impact of COVID-19 on educational practices and delivery will require more time to be fully understood.

Our intention is to promote the scientific debate for the key implications of the modified online mode of delivery as well as the components of strategies and policies that enhance the social value and the social impact of training, education, and research. Our intended contribution is multifold:

- To promote recent sound research on effective training, education, and research strategies and methodologies.
- To contribute to the body of knowledge by promoting sound methodological approaches for effective training, education, and research in COVID-19 times.
- To communicate best practices and key lessons learned related to training, education, and research in the COVID-19 period.
- To invite relevant scientific debate from diverse communities from different domains of human activity including medical training and research, business training and education, information systems and computer sciences education, etc.
- To contribute to the discipline of training and education by synthesizing complementary approaches, limitations, and key findings.



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Topics covered in the twelve accepted papers of our Special Issue include but are not limited to the following:

- Training strategies in the COVID-19 period.
 - Effective technology for enhanced learning interventions in the COVID-19 period.
 - Transforming education from an off-line to an on-line paradigm in the COVID-19 period.
 - Research excellence and strategies in the COVID-19 period.
 - Enhancing the skills, competencies, and knowledge of trainees in the COVID-19 period.
 - Engagement, interaction, and active training and learning in the COVID-19 period.
 - Higher education best practices for delivering top-quality education in the COVID-19 period.
 - Case studies in medical training and research.
 - Business training and education.
 - Information systems and computer sciences education.
 - Strategic frameworks for training, education, and research efficiency in COVID-19 times.
 - Key performance indicators and learning analytics for measuring the effectiveness of online training in the times of COVID-19.
 - Integration of academia and industry for training, education, and research.
 - Social networks research for enhanced training, education, and research in COVID-19 times.
 - Quality initiatives for effective training, education, and research in COVID-19 times.
- Some of the key conclusions of our special issue debate are summarized as follows:
- COVID-19 challenged all the educational systems worldwide and also forced a radical adoption of the digital transformation of education.
 - Several lessons learnt from the adopted educational process emphasize in a bold way the need for collaboration among diverse stakeholders in the training, education, policy making, and research communities.
 - The various technological means and the new generation of learning management tools and online lectures prove their capacity to support, in the long term and in the post-COVID era, a new era of blended learning in academia [7–9]. This trend will require additional research related to the equivalent of online training and the capacity of faculty to support this multidimensional role of the online tutor.
 - COVID-19 proves the impact of diverse psychological factors on the efficiency of training, education, and research. From this point of view, additional research needs to focus on the design of sustainable counseling and psychological support of trainees and trainers during times of crisis.
 - In terms of policy making and possible adjustment at the strategic planning of educational, training, and research management in times of crisis, it is evident that new flexible procedures for time management, significant rewards and incentives for skills and competencies management, and allocation of required resources to the various stakeholder are a few of the measures that need to be considered.
 - One of the most important challenges in the post-COVID time is to capitalize on the know-how gained and to design sustainable policies, processes, and socio-technical systems capable of supporting education, training, and research in crisis times of the future.
 - Last but not least, the research production about the phenomenon of COVID-19 should initiate a scientific debate on how local contributions can be integrated with similar ones in the global context in order to promote the idea of a global scientific collective action.

2. List of Contributions

A more focused overview of the collection of articles published in our special issue is summarized below:

1. Factors Influencing Students' Behavior and Attitude towards Online Education during COVID-19
2. Residents' Training in COVID-19 Pandemic Times: An Integrated Survey of Educational Process, Institutional Support, Anxiety and Depression
3. A Progressive Model for Quality Benchmarks of Trainees' Satisfaction in Medical Education: Towards Strategic Enhancement of Residency Training Programs at Saudi Commission for Health Specialties (SCFHS)
4. University Students' Perception, Evaluation, and Spaces of Distance Learning during the COVID-19 Pandemic in Austria: What Can We Learn for Post-Pandemic Educational Futures?
5. Multilevel Antecedents of Organizational Speed: The Exemplary Case of a Small Italian R&D Organization
6. Impact of COVID-19 on the Educational Process in Saudi Arabia: A Technology–Organization–Environment Framework
7. Factors Influencing the Adoption of COVID-19 Preventive Behaviors in Chile
8. The Effectiveness of Online Education during COVID-19 Pandemic—A Comparative Analysis between the Perceptions of Academic Students and High School Students from Romania
9. Conducting Population Health Research during the COVID-19 Pandemic: Impacts and Recommendations
10. The Critical Factors of Student Performance in MOOCs for Sustainable Education: A Case of Chinese Universities
11. Cyber-Physical System of Psychophysiological Support of Professional Self-Realization in Professions of the 'Man-Nature' Type in the Formation of Specialists for Sustainable Development
12. Building on Strategic eLearning Initiatives of Hybrid Graduate Education a Case Study Approach: MHEI-ME Erasmus + Project

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