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Eileen Scanlon,
The Open University, United Kingdom

*CORRESPONDENCE
José-Antonio Marín-Marín
✉ jmarin@ugr.es

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Editorial: Pedagogical methods and technological resources in education in times of pandemic

Antonio-José Moreno-Guerrero¹, José-Antonio Marín-Marín^{2*}
and Jesús López-Belmonte¹

¹Department of Didactics and School Organisation, Faculty of Education, Economics and Technology of Ceuta, Ceuta, Spain, ²Department of Didactics and School Organisation, Faculty of Education Sciences, Granada, Spain

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Editorial on the Research Topic

Pedagogical methods and technological resources in education in times of pandemic

The COVID-19 pandemic has had a significant impact on all aspects of society, including education (Corell-Almuzara et al., 2021). The need to maintain social distance and prevent the spread of the virus has led teachers to massively adopt pedagogical methods and technological resources to continue teaching and learning at a distance. In this sense, online pedagogical methods have included teaching through platforms such as Google Classroom and Microsoft Teams, and the use of videos and presentations through Blackboard and Canvas, which have allowed teachers to create and share teaching materials online, as well as interact with students through forums and chats in real time (Domínguez-Lloria et al., 2021). These methods have enabled teachers to reach a wider audience and provide more flexible learning, as students have been able to access teaching materials anytime, anywhere. In addition, technology has also enabled the use of virtual tools to improve the interaction between teachers and students, such as online meetings and discussion forums. These resources allow students to participate in real-time discussions and work in virtual groups, which help to improve their understanding and foster teamwork.

However, it is also important to note that online education presents unique challenges, such as the lack of face-to-face interaction with teachers and peers, and the need for solid technological infrastructure and access to the Internet. This need for digital transformation also externalizes other challenges, such as the digital divide that exists among students and the lack of training in the use of digital technologies. In this sense, some students may have difficulties adapting to an online learning environment and may require additional support to ensure their success (Cáceres Reche et al., 2021). In addition, teachers themselves face difficulties in adapting to an online learning environment and may need support to improve their technological competencies to enable them to deliver effective teaching. In general, teachers have been overwhelmed and subjected to high levels of stress, both emotional and work-related (Vergine et al.). This has been due to the concurrence of several factors: the transition from traditional face-to-face teaching to online teaching in a digital environment they were not used to working in; the need to invest more time and effort in preparing lessons for a virtual environment; drastic decrease in face-to-face interaction between teachers

and students, which can be a source of stress for those teachers who enjoy teaching in direct contact with their students; uncertainty about the future of the pandemic and the effects and implications it may have on the health and safety of teachers themselves and their families (in the hybrid context of teaching).

On the contrary, the digital transformation brought about by COVID-19 is having a significant impact on both university and non-university education and is revolutionizing the way teachers teach and students learn (Røe et al.). One example of digital transformation in university education is the increased use of online learning tools, such as Massive Open Online Courses (MOOCs). These platforms allow students to access high-quality courses from universities around the world and learn at their own pace. Technology is enabling the creation of new pedagogical methods and technological resources that improve the effectiveness and efficiency of teaching.

Finally, it is important to continue to research and improve the resources that have currently been developed as a result of COVID-19 and to ensure that students have access to quality education, thus enabling teachers to deliver effective teaching in a hybrid environment and to combine traditional methods with those experienced in times of the pandemic (Felices-De la Fuente and Chaparro-Sainz). However, it is important to address the challenges faced in ensuring that all students have access to the technology and training needed to succeed in a digital environment. As we have seen, digital learning is here to stay.

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Conflict of interest

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