Choices, Costs and Gains in Portuguese higher education during the pandemic confinement: professors' testimonials about the main didactic, technological and social challenges

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## Abstract:

Over the years, Portuguese Higher Education (HE) institutions have been increasingly adjusting with blended-learning and e-learning approaches. However, in March 2020, the COVID-19 pandemic challenged educators (e.g., teachers, trainers) all over the world, and HE actors (e.g., teachers and students) were not an exception. Not only have all HE institutions shifted from a face-to-face scenario to an online distance learning scenario almost overnight, but HE teachers also had to suddenly deal with serious social, technological and didactic challenges. Undergraduate research often aligns closely with institutional graduate outcomes.

This communication presents the testimonials of twelve Portuguese professors regarding the main social, didactic and technological challenges that the pandemic situation brought to this specific educational context, during the lockdown of March 2020. All the persons surveyed are professors in public Portuguese public HE institutions (universities and polytechnic institutions) and have research-expertise in distance education.

Data were collected by applying an online questionnaire.

The participants answered to a structured online questionnaire, allowing the identification of guidelines regarding the differences between Emergency Remote Teaching (ERT) and Distance Education (DE). Based on a content analysis technique, results unveil the main social, didactic and technological challenges (choices, costs and gains identified) during the pandemic confinement performed by those experienced professors in a range of courses and curricular units, including social sciences (education) and engineering. The answers were also analyzed in the scope of the Technological Pedagogical Content Knowledge (TPCK) approach, to identify and describe the type of knowledge these professors consider relevant in order to develop effective pedagogical practices in technology-mediated learning environments.

Currently, professors may face what seems yet another challenge, that is, to sustain the innovations performed during the COVID-19 pandemic confinement. 'Lessons learned' presented by the experienced professors, and recommendations for further evolution of online distance learning in HE in the country.

**Keywords**: distance education, emergency remote teaching, blended-learning approach, e-learning, technological pedagogical content knowledge