Chapter 5
Didactic, Technological, and Social Challenges in Portuguese Higher Education During the Pandemic Confinement:
Testimonials of Experienced Educational Trainers

Cecília Vieira Guerra
University of Aveiro, Portugal

Maria José Loureiro
https://orcid.org/0000-0003-3265-5311
University of Aveiro, Portugal

Susana Senos
University of Aveiro, Portugal

ABSTRACT

This chapter presents testimonials of 12 national experts in the field of educational technology concerning the main didactic, technological, and social challenges they faced throughout the "emergency remote teaching" that occurred during the COVID-19 pandemic confinement. All experts are professors in Portuguese universities or polytechnic institutions, and they are acquainted with the "distance education" modality. An online questionnaire was applied to these 12 professors in order to collect their opinions about the main challenges during this period. Based on a content analysis technique, the results revealed several technological (e.g., unpredictability of internet connections), didactic (e.g., the teachers' lack of technological pedagogical content knowledge), and social challenges (e.g., the lack of proper physical spaces at home). Based on the lessons learned from this worldwide pandemic emergency, and critically reflecting about it, recommendations are suggested for future action to "distance education" in higher education.

INTRODUCTION

In March 2020, the COVID-19 pandemic situation brought sudden challenges to higher education (HE), all over the word, and HE institutions (HEIs) had to prepare professors and students for such a huge transition, both at pedagogic and technologic levels. In Portugal, HE professors suddenly had to shift from face-to-face to online learning scenarios almost overnight, and they had to deal with diverse challenges, such as: lack of HE institutional policies about online education and/or students' difficulties, namely in transversal skills, such as social and technological skills (e.g., learning autonomy, collaboration, critical thinking, ethical and responsible behavior in digital environments). Consequently, professors found themselves in the urge to adapt to this new educational reality, shifting from a face-to-face paradigm to an online one almost overnight, regardless of being pedagogically prepared for this change. Such a sudden and disruptive change has, in fact, in many situations, missed what research has shown to be the foundations of effective online learning, for instance: the use of systematic pedagogical models created with the help of careful online instructional design rules and planning.

It is therefore, in many cases, not fair to refer to the learning that occurred during this COVID-19 pandemic as "online learning", and that is why researchers prefer to distinguish this "emergency teaching" by referring to it as "Emergency Remote Teaching" (ERT) – "a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances" (Hodges, et al, 2020). In fact, as there is no careful planning involved and the situation is one of crisis, the main focus is on reaching students and finding ways, through the use of the technology available, to continue delivering instruction in manners, in many ways, quite close to what face to face instruction looked like.

Internationally, authors have been conducting studies in order to analyze the main challenges of the ERT experienced by teachers and students in school level (non-HE) during the COVID-19 pandemic confinement (e.g., Affouneh, Salha, & Khlaif, 2020; Khlaif, & Salha, 2020; Ferri, Grifoni and Guzzo, 2020). For instance, in Italy, the study conducted by Ferri, Grifoni and Guzzo (2020) revealed different challenges of ERT, specifically at technological, pedagogical, and social levels. The technological challenges identified were mainly related to the unreliability of Internet connections and the lack of electronic devices of students and teachers. The pedagogical ones were the lack of teachers' and students' digital competences, such as the lack of online social and cognitive presence. And finally, the social challenges were related with the lack of human interaction between teachers-students and students-students, physical spaces at home to receive lessons and students' support by parents, who are also frequently working remotely.

In HE, the situation is potentially more complex as the data point to changes in student literacy, putting the established academic teaching practices and associated intellectual values in question (Sjöberg, & Lilja, P, 2020), once students' digital literacy high level is not consentaneous with teaching practices, particularly in classical lectures. Based on the lessons learned from these studies, it is also important to reflect about the main challenges of ERT experienced in HE context during the COVID-19 pandemic confinement. When it comes to HE in Portugal, different scenarios were presented during the first pandemic confinement (from March to August 2020): those HEIs and professors already used to "online distance education" continued their academic practices and didn't face any adaptations, whereas those who were more used to face-to-face learning scenarios began what specialists refer to as ERT. In Portugal, there is an integrated but differentiated system of HE, organized by universities and polytechnic institutes[1], which have been promoting several Master's and PhD's degrees, and some of them "at a distance", since the late 1980's. Portuguese Universities, such as the University of Aveiro, have the tradition of provid-

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