

Lessons learned from COVID-19 pandemic at the University of Barcelona: innovative solutions for a hybrid teaching-learning model

This product synthesizes the results of a study with the aim to analyze the online emergency teaching carried out at the University of Barcelona during the pandemic crisis of 2020. In the light of the analysis, it was developed an innovation proposal for a hybrid teaching-learning model in higher education; profiting from the advantages of both in-person and remote teaching.

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Open materials

First of all, a relevant aspect that cannot be ignored is the fact that the courses materials should be open and free access for all students. In some cases, students needed to find out how to access with their own resources the required literature (e.g. buying a book). Free access materials are a key aspect concerning the pledge of equity and inclusion, as there is evidence of how open educational resources (OER) increase students' grades, especially those with fewer socioeconomic resources (Colvard et al., 2018). The high cost of textbooks has a much greater impact on student achievement than most people imagine, and the benefits of switching to OER are well documented (DeRosa, 2020). Clearly this encourages students to keep track of their courses and achieve a greater and better learning. During the situation experienced due to COVID-19 the contents were adapted and made available to all students, taking into account the impossibility of accessing the computers of the UB libraries. This promoted the search and use of open access resources among teachers, leading to a new implementation of free materials and software.



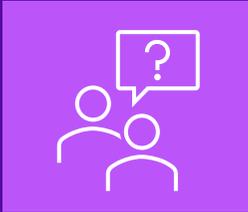
Asynchronous teaching

In line with the ideas of Hodges et al. (2020), one of the main factors that have been concluded that can greatly benefit hybrid teaching is asynchrony. In Wise & Bergner (2020) asynchrony was identified by students as one of the most important and necessary elements in remote learning. Similarly, its usefulness and relevance do not lose strength in hybrid learning. As obtained in our analysis, asynchrony allows for better family reconciliation, flexibility, time organization, and well-being, in line with the authors cited above. In relation to learning, Information and Communication Technologies (ICT) allow students to re-access the material and contents of their courses, which promotes students' metacognition and learning self-regulation (Onrubia, 2011). For this reason, it is proposed to save and record lectures (e.g. face to face or synchronous sessions). Regarding equity and inclusion, asynchrony helps dealing with technological exclusion, as disadvantaged students may not have adequate equipment or connectivity and cannot cope with the technological demands of digital synchrony. As reported in many cases in our study, asynchrony has allowed some students to follow courses lectures, because asynchronous content is more accessible and transferable (e.g. USB pen drive).



Active participation

As our analysis shows, it should not be considered that a synchronous master class in a virtual room is an equivalent of online teaching (Sánchez et al., 2020; Wise & Bergner, 2020; Hodges et al., 2020). One of the most important factors for students is active participation (Wise & Bergner, 2020). In our study, the use of flipped classroom methodology stands out. In this methodology professors prioritize active learning during class time by assigning students materials and activities to be prepared at home or outside of class. During class, students interact and perform more participatory activities: analyze ideas, debates, group work, etc. Another good option is the use of cooperative learning techniques (not methods), that are simple structures that do not require adjustments or prior training of students: they can be applied directly; most of them of short duration (minutes). Thanks to their easy applicability, these techniques allow professors to start using cooperative learning (Duran, 2012); for a selection of cooperative learning techniques see the GRAI website (2016). In relation to inclusion, cooperation makes possible to benefit from diversity, which means meeting and reaching consensus with people with other ways of thinking and with different interests that can nurture their own (Tharp et al. 2002).



Professors' cooperation

In our study, one key aspect during COVID-19 pandemic was the role of cooperation meetings of teaching staff to coordinate and help each other, plan and organize their courses. In our analysis, work groups with regular virtual meetings appeared as a suitable sustainable option over time, which allow professors to: learn from the rest of the team; share strategies, materials and teaching resources; engage in joint reflection; evaluate their own practice and their teaching style; analyze common problems (Lester and Evans, 2009; Bacharach et al., 2008; Fuentes-Peláez et al., 2017; Novella and Pérez Escoda; 2017). Teamwork represents a great opportunity to increase teaching resources and strategies (Gómez et al., 2014), in comparison with doing it individually. Accordingly, the university must favor, recognize and value teaching teams (Escofet et al., 2017). However, it is important to emphasize that working in teaching groups should not be an imposed measure as the effectiveness of teaching collaboration depends on the usefulness, need and meaning perceived by the participants (Escofet et al., 2020; Novella and Pérez Escoda, 2017).

Original study

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