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A MOOC-based flipped experience: Scaffolding SRL strategies improves learners' time management and engagement

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Abstract

Higher education institutions are increasingly considering the use of a form of blended learning, commonly named as flipped classroom (FC), in which students watch video lectures drawn from a massive online open course (MOOC) before a face-to-face lecture. This methodology is attractive, as it allows institutions to reuse high-quality material developed for MOOCs, while increasing learning flexibility and the students' autonomy. However, the adoption of this methodology is low in general, especially in Engineering courses, as its implementation faces a number of challenges for students. The most salient challenge is the lack of student self-regulatory skills, which may result in frustration and low performance. In this paper, we study how a self-regulatory learning technological scaffold, which provides students with feedback about their activity in the MOOC, affects the engagement and performance of students in an Engineering course following a MOOC-based FC approach. To this end, we design an observational study with the participation of 242 students: 133 students in the experimental group (EG) who used a technological scaffold and 109 in the control group (CG) who did not. We did not find a statistically significant difference between the academic achievements of both groups. However, the EG exhibited a statistically significant greater engagement with the course and a more accurate strategic planning than the CG. The main implications for scaffolding self-regulated learning in FC derived from these results are discussed. © 2020 Wiley Periodicals LLC

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