

Switching To Virtual Classes Due To Covid-19: Correlation and Panel Data Analyses to Model Students' Performance

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ABSTRACT

Due to the Covid-19 pandemic, the education institutions were required to transform their traditional teaching methods (face-to-face classes) to online courses. In Puerto Rico, news outlets expressed a national concern regarding this teaching style as there was an increase in the percentage of students who failed their academic semester. Based on a previous research, this study aimed to identify if students' attitudes towards a course was correlated to their grades, rather than the fact that the class was taught in a virtual setting. Information about number of times the students viewed the material as well as the day they decided to work on the course were retrieved from students enrolled in a Statistics course during the Spring 2021 semester at the University of Puerto Rico at Mayagüez. Correlation analyses, as well as panel data models, suggested that the only variable that influences students' performance is the amount of time that has elapsed for them to work on the course. The results were then validated with a Transportation Engineering related course. Although it may be the case that students were not ready for the transition from the traditional classroom to virtual classes, there is no evidence that online education is linked to poor student performance.

Keywords: online education, virtual classes, panel data, students' performance